United Nations A/C.5/71/20

General Assembly

Distr.: General
28 February 2017

Original: English

Seventy-first session
Fifth Committee
Agenda item 149
Administrative and budgetary aspects of the financing of the United Nations peacekeeping operations

Letter dated 8 February 2017 from the Chair of the 2017 Working Group on Contingent-Owned Equipment to the Chair of the Fifth Committee

In my capacity as Chair of the 2017 Working Group on Contingent-Owned Equipment, I have the honour to transmit to the Fifth Committee the report of the Working Group, which met from 16 to 27 January 2017.

The Working Group completed its heavy workload by consensus within the 10 working days allotted for its triennial review of reimbursement rates for contingent-owned equipment. The number of issue papers submitted for consideration by the 2017 Working Group — 104 — was greater than the total number of issue papers considered by the 2011 and 2014 Working Groups combined. I commend members of the Working Group for the spirit of compromise and consensus with which they conducted their work to achieve this result. In addition, I thank the Secretariat for its efforts in preparing for and supporting the deliberations of the Working Group.

Despite the best efforts of the Bureau, a significant time of the session was spent on organizational matters. It may be noted that most of the delegates in the Working Group were from capitals. In the future, the time available to the Working Group for substantive deliberations could be maximized if such issues were addressed during a pre-session organizational meeting. Such a meeting could be convened in the fall before the regular session of the Working Group but following the deadline for submission of issue papers and national cost data. During this meeting, members of the Working Group could elect members of the Bureau, propose sub-working groups to convene, decide on the allocation of agenda items and adopt the provisional programme of work. Convening an organizational meeting in advance would maximize the time available for a detailed review of the contingent-owned equipment system that underpins the effectiveness of contingents in undertaking the mandated tasks entrusted to peacekeeping operations.

(*Signed*) Durga Prasad **Bhattarai**
Chair
2017 Working Group on Contingent-Owned Equipment

17-02094 (E) 310317

Please recycle

Contents

		Page
I.	Introduction	3
II.	Summary of discussions in the plenary	4
	A. Summary of discussions in the organizational meeting	4
	B. Further discussions in the plenary	5
III.	Programme of work of the Working Group	5
	A. Election of the Bureau	5
	B. Election of Chairs and Vice-Chairs of the sub-working groups	5
	C. Adoption of the agenda	5
	D. Issue papers not allocated to the sub-working groups	6
IV.	Review of reimbursement rates	7
V.	Recommendations with regard to submitted issue papers	9
	A. Major equipment	9
	B. Self-sustainment and cross-cutting issues	21
	C. Medical support	30
VI.	Closing remarks	34
Annexes		
1.	2017 COE Working Group: Revised reimbursement rates for major equipment	35
2.	2017 COE Working Group: Revised reimbursement rates for self-sustainment	54
3.	2017 COE Working Group: New items of major equipment	56
4.	(consisting of the following):	
	4.1 2017 COE Working Group: Level I medical facility	61
	4.2 2017 COE Working Group: Level II medical facility	63
	4.3 2017 COE Working Group: Level III medical facility	69
	4.4 2017 COE Working Group: Laboratory-only facility	75
	4.5 2017 COE Working Group: Dental-only facility	76
	4.6 2017 COE Working Group: Aero-medical evacuation module	77
	4.7 2017 COE Working Group: Forward surgery module	80
	4.8 2017 COE Working Group: Gynaecology module	81
	4.9 2017 COE Working Group: Orthopaedic module	82
	4.10 2017 COE Working Group: Physiotherapy module	83
	4.11 2017 COE Working Group: Fee-for-service schedule	85
5.	(consisting of the following):	
	5.1 2017 COE Manual: chapter 3, annex A, appendix 1, Generators	86
	5.2 2017 COE Manual: chapter 7, annex B, Hostile action/forced abandonment factor	89

I. Introduction

1. The present system of contingent-owned equipment entered into effect on 1 July 1996, following the adoption of General Assembly resolution 50/222 of 11 April 1996. Regular reviews of the rates and standards of reimbursement began in 2004, following the decision of the General Assembly in its resolution 55/274 of 14 June 2001 to convene "an open-ended working group of experts, for a period of no less than ten working days, to hold a triennial review of reimbursement rates for contingent-owned equipment and self-sustainment, including medical services". That group of experts was subsequently named the Working Group on Contingent-Owned Equipment. Prior to its 2017 meeting, the Working Group convened in 2004, 2008, 2011 and 2014. The reports of prior meetings of the Working Group, the associated reports of the Secretary-General and the Advisory Committee on Administrative and Budgetary Questions and the related resolutions of the General Assembly are listed below.

Working Group	*Report of the Working Group*	*Report of the Secretary-General*	*Report of the Advisory Committee on Administrative and Budgetary Questions*	*General Assembly resolution*
2004	A/C.5/58/37 and Corr.1	A/59/292	A/59/708 and A/59/736	59/298 of 22 June 2005
2008	A/C.5/62/26	A/62/774 and Corr.1	A/62/851	62/252 of 20 June 2008
2011	A/C.5/65/16	A/65/800	A/65/830	65/292 of 30 June 2011
2014	A/C.5/68/22	A/68/830	A/68/867	68/282 of 30 June 2014

2. Over 300 experts from 76 Member States participated in the 2017 Working Group, representing countries collectively contributing over 90 per cent of the military and police personnel deployed to peacekeeping missions and over 90 per cent of the annual financial requirements for peacekeeping.

3. The 2017 Working Group was presented with an unprecedented workload of 104 issue papers submitted by the deadline, consisting of 26 issue papers prepared by the Secretariat and 78 issue papers by interested Member States, as well as national cost data provided by 45 Member States. Five additional issue papers were submitted after the deadline. At its meetings, held from 16 to 27 January 2017, it considered those submissions in three sub-working groups, one addressing issues pertaining to major equipment, one addressing issues pertaining to self-sustainment and cross-cutting issues and one addressing issues pertaining to medical support. The Reimbursement Policy and Liaison Section of the Field Budget and Finance Division in the Department of Field Support served as the secretariat of the Working Group. Further substantive support to the deliberations was provided by representatives from the Department of Field Support, the Department of Peacekeeping Operations and the Medical Services Division of the Department of Management.

4. The present report provides a summary of the discussions and key recommendations of the 2017 Working Group. The information contained in the annexes constitutes essential data upon which the recommendations should be implemented. These recommendations should be read in conjunction with the

recommendations contained in the Phase II,[1] Phase III,[2] Phase IV,[3] Phase V,[4] post-Phase V Working Group,[5] 2004 Working Group, 2008 Working Group, 2011 Working Group and 2014 Working Group reports. The recommendations of those prior Working Groups, which were subsequently approved by the General Assembly, were codified in the 2014 edition of the Manual on Policies and Procedures Concerning the Reimbursement and Control of Contingent-Owned Equipment of Troop/Police Contributors Participating in Peacekeeping Missions (COE Manual).[6]

II. Summary of discussions in the plenary

A. Summary of discussions in the organizational meeting

5. An opening statement was made by Atul Khare, Under-Secretary-General for Field Support, and Hervé Ladsous, Under-Secretary-General for Peacekeeping Operations. Mr. Khare noted that the Working Group provided an opportunity for the Secretariat and Member States to reflect together on the changing context and requirements of peacekeeping and to review the critical components of the architecture in which troop/police contributors participate in United Nations peacekeeping missions. He emphasized the need to ensure that contingents have the appropriate skills, training and equipment for their mandates; that they meet ethical standards and environmental norms; and that they are deployed with the requisite medical support. Mr. Ladsous drew the attention of the Working Group to the challenging context in which peacekeeping operations are deployed today. He indicated that force generation and rapid deployment remain an area of concern, but that the Peacekeeping Capability Readiness System, established in July 2015, serves as a platform by which Member States can register capabilities and pledge to deploy them at short notice.

6. Following the election of the Bureau and the Chairs and Vice-Chairs of the sub-working groups, the Secretariat delivered a briefing on the contingent-owned equipment system.

7. Finland, Indonesia, Pakistan, the United States of America and Zambia delivered opening statements. Indonesia highlighted the need to close the gap between capabilities and mandates and to acknowledge good performance on the part of contingents. The United States emphasized the importance of conduct and discipline within contingents, transparency and accountability in the contingent-owned equipment system and addressing issues outside of the contingent-owned equipment system in the appropriate forums. Pakistan noted that peacekeepers must be equipped with the right equipment for the mandates that they are being asked to implement. Zambia stressed the need for reasonable reimbursement rates that take into account the impact of environmental conditions and the intensity of operations on maintenance requirements. Finland reaffirmed its commitment to United Nations peacekeeping and noted that deployment of peacekeepers is not only a matter of quantity; it is also one of quality, in order to carry out operations in a flexible and effective manner.

[1] A/C.5/49/66.
[2] A/C.5/49/70.
[3] A/C.5/52/39.
[4] A/C.5/54/49.
[5] A/C.5/55/39 and Corr.1.
[6] A/C.5/69/18.

B. Further discussions in the plenary

8. The Chef de Cabinet, Maria Luiza Ribeiro Viotti, delivered a statement on behalf of the Secretary-General on 17 January 2017. The Chef de Cabinet stressed the importance of partnership between troop/police-contributing countries and major financial contributors in improving the effectiveness of peacekeeping missions. She also emphasized the need for peacekeeping operations to make the civilian populations they serve feel protected, and that transparency and accountability are critical in that regard. She noted that structural changes are required to ensure adherence to the zero-tolerance policy on sexual exploitation and abuse.

9. France delivered a statement in the plenary, where it firmly recalled the general French orientation to allow slight increases in costs that could result in a positive impact on the quality and the effectiveness of units deployed in peacekeeping operations. France further reaffirmed that such controlled and targeted increases are permissible and justified.

III. Programme of work of the Working Group

A. Election of the Bureau

10. Mr. Durga Prasad Bhattarai (Nepal) and Major Kjetil Andreas Andersen (Norway) were elected Chair and Vice-Chair, respectively, by acclamation. The sole candidate for the position of Rapporteur withdrew his candidature and no nominations were received during the organizational meeting. The Chair and Vice-Chair therefore assumed the duties performed by the Rapporteur in previous meetings of the Working Group in preparing the report of the Working Group.

B. Election of Chairs and Vice-Chairs of the sub-working groups

11. After the election of the Bureau, and based on nominations submitted by Member States, the following were elected Chair and Vice-Chair of the three sub-working groups by acclamation:

Major equipment

Lieutenant General Paul Ignace Mella (United Republic of Tanzania)
Brigadier General Domenico Pace (Italy)

Self-sustainment

Colonel Gerard Buckley (Ireland)
Colonel Barthélemy Diouf (Senegal)

Medical support

Colonel Stephan Krull (Germany)
Lieutenant Colonel Kari Kesseli (Finland)

C. Adoption of the agenda

12. During the organizational meeting on 16 January 2017, the Bureau of the Working Group proposed an allocation of issue papers among the three sub-working groups. Under the proposal, cross-cutting issues and changes to the COE Manual would be addressed by the self-sustainment sub-working group. The Working Group adopted a provisional agenda based on the allocation.

D. Issue papers not allocated to the sub-working groups

13. Many issue papers did not appear to fall within the subjects covered by any of the three sub-working groups. In addition, five further issue papers were submitted by Member States after the submission deadline. The Chair of the Working Group endeavoured to consult with members of the Bureau and with the members of the Working Group who had submitted those papers on how to address the concerns raised in those papers.

14. Following those consultations, the Vice-Chair of the Working Group proposed to the Working Group a way forward during its plenary meeting on 18 January. First, he proposed that the issue papers submitted after the deadline would be considered not receivable. Secondly, he suggested that issues that fall outside of the remit of the Working Group and that are currently dealt with by other intergovernmental bodies, such as the Special Committee on Peacekeeping Operations or the Fifth Committee of the General Assembly, should be dealt with by those other forums. Such issues included compensation for death and disability, rates of reimbursement for contingent personnel and implementation of the recommendations of the Senior Advisory Group established pursuant to General Assembly resolution 65/289.[7] It was recalled that the General Assembly will review the rates of reimbursement for contingent personnel at its seventy-second session in 2018. Thirdly, he proposed that four issue papers not previously allocated to any sub-working group under the provisional agenda be taken up by the sub-working group on major equipment. The four papers were Bangladesh issue paper,[7] on reimbursement for naval vessels in the Maritime Task Force of the United Nations Interim Force in Lebanon, Brazil issue paper 1, requesting the itemization of payable costs for naval vessels, Ghana issue paper 5, on the provision of aircraft hangars, and Zambia issue paper 1, on the size of areas of responsibilities for units.

15. Finally, the Vice-Chair highlighted a number of issue papers submitted on issues outside the remit of the Working Group but which have not been recently considered by any other forum. Some papers, for example, proposed adjustments to the daily allowance, the level of which has not been adjusted since 1974, as well as the recreational leave allowance. The proponents of those papers noted that the levels of the allowances have not kept up with increases in the cost of commodities. One set of papers highlighted the importance of life-cycle management of facilities in United Nations operations and conserving resources. Other papers drew attention to mission-specific challenges faced by individual contingents during their deployments, such as the provision of rations to specialized police units. The Vice-Chair proposed that these issue papers not be addressed by the Working Group but that the importance of addressing these issues be emphasized in the report. In addition, the Secretariat would be requested to facilitate the resolution of these issues. This course of action was agreed by the Working Group at its plenary meeting on 19 January.

16. The issue papers submitted after the deadline were as follows:

(a) India issue paper 4, on storage of fuel with contingents;

(b) Pakistan issue paper 11, on the rotation of helicopters under United Nations expense;

(c) United Republic of Tanzania issue paper 1, on reimbursement of contingent-owned equipment for units with a special mandate to undertake offensive operations;

[7] A/C.5/67/10.

(d) United Republic of Tanzania issue paper 2, on arrangements for reimbursement for equipment lost or damaged owing to hostile action or forced abandonment;

(e) United Republic of Tanzania issue paper 3 on the deduction to personnel reimbursement on account of absent or non-functional contingent-owned equipment.

17. The issue papers deemed to be outside of the remit of the Working Group and therefore not assigned to any sub-working group for consideration were as follows:

(a) Brazil issue paper 5, on the provision of petroleum, oil and water to naval vessels;

(b) Brazil issue paper 4, Brazil issue paper 7 and Netherlands/South Africa issue paper, on reimbursement rates for military aircraft and naval vessels;

(c) India issue paper 3 and Morocco issue paper 3, on the typical rotation period for personnel;

(d) Ghana issue paper 4, on conditions pertaining to personnel rotation;

(e) Ghana issue paper 2 and Pakistan issue paper 10, on personnel reimbursement;

(f) Indonesia issue paper 3, Pakistan issue paper 3, Senegal issue paper 2, Senegal issue paper 5 and South Africa issue paper 1, on deductions to personnel reimbursement on account of absent or non-functional contingent-owned equipment;

(g) Bangladesh issue paper 5, proposing the introduction of a sea allowance for naval personnel;

(h) Bangladesh issue paper 2, Malawi issue paper 2 and Pakistan issue paper 9, on the revision of the level of the daily allowance and/or recreational leave allowance;

(i) Bangladesh issue paper 3, proposing the introduction of annual leave at United Nations expense for contingent personnel deployed for year-long tours of duty;

(j) Ghana issue paper 2 and Pakistan issue paper 8, on the level of death and disability compensation;

(k) Finland issue papers 1, 2 and 3, on responsibility for bases;

(l) Senegal issue paper 4 and Ethiopia issue paper 1, on mission-specific challenges faced by individual contingents.

18. Although these issues were not considered by the Working Group because they do not pertain to subjects covered by the COE Manual, they still warrant serious consideration in the appropriate forums. The support of the Secretariat is appreciated in ensuring that these issues are considered in the relevant intergovernmental bodies or addressed bilaterally with the concerned troop/police contributors, as applicable.

IV. Review of reimbursement rates

19. Consultations on the reimbursement rates for major equipment and self-sustainment were undertaken by a group of focal points from all three sub-working groups and facilitated by the Vice-Chair of the self-sustainment sub-group, Colonel Barthélemy Diouf (Senegal) and Captain Chris Kiernan (Ireland).

20. The focal points group considered a number of methods for adjusting the reimbursement rates, including the following approaches:

(a) Adjusting the rates based on inflation;

(b) Applying a method similar to that used by the 2008 or 2011 Working Groups, which excluded national data above or below a threshold established by Member States;

(c) Using the median instead of the mean when determining a new rate after excluding outliers.

21. Some participants in the deliberations raised concerns about the quality of the data submitted and questioned the necessity of adjusting the rates of reimbursement from those approved in 2014, particularly when the majority of countries submitting data either indicated that they accepted the 2014 rates or left a majority of their responses blank. Other participants pointed out that the data submitted by major troop/police contributors suggested the need for increases in the reimbursement rates and that the countries that accepted the 2014 rates generally did not contribute significant numbers of troops or police to peacekeeping missions.

22. The focal group agreed upon an approach for adjusting the major equipment reimbursement rates that involved filling in gaps in submissions with the 2014 rates, after which the standard deviation of adjusted submissions for each category of equipment was calculated. Upper and lower limits were set by adding and subtracting the resulting standard deviation from the 2014 rate. The focal group then undertook a subjective review of the data within the upper and lower limits to eliminate outliers, focusing on categories of equipment determined by the group to be significant. The revised rate was the average of the remaining data. However, the focal group was unable to reach agreement on revised rates for major equipment using this approach and was not able to reach agreement on an approach for adjusting the rates for self-sustainment.

23. The Working Group ultimately agreed in plenary to net average increases of 0.6 per cent to the wet lease reimbursement rates for major equipment and the reimbursement rates for self-sustainment.

Recommendation

24. The 2017 Working Group recommended that:

(a) The revised rates in chapter 8, annex A, for major equipment (see annex 1 to the present report) should apply; those rates should be reflected in all medical annexes in chapter 3 of the COE Manual as applicable;

(b) The revised rates in chapter 8, annex B, for self-sustainment (see annex 2 to the present report) should apply;

(c) The next triennial review of rates of reimbursement for contingent-owned equipment should continue to be conducted using data provided or selected by Member States and consolidated by the Secretariat alongside cost data provided by the Secretariat on articles of major equipment that exist in United Nations inventory or are available through procurement contracts, including systems contracts.

V. Recommendations with regard to submitted issue papers

A. Major equipment

25. The major equipment sub-working group considered the following issues relating primarily to major equipment and nominated focal points to coordinate deliberations on those issues:

(a) United States issue paper 2, on reimbursement rate methodology (United States);

(b) Ghana issue paper 3, Pakistan issue paper 5 and Pakistan issue paper 7, on reimbursement rate methodology (Pakistan and Ghana);

(c) Secretariat issue paper 20 and Brazil issue paper 5, on the classification of armoured personnel carriers (Argentina, Brazil, Chad, Fiji, Senegal and the United Kingdom);

(d) Secretariat issue paper 10 and United States issue paper 1, on generators (United States);

(e) Secretariat issue paper 1, on demining, explosive ordnance disposal and improvised explosive device disposal equipment; Secretariat issue paper 2, on unmanned aerial systems; Secretariat issue paper 3, on modernization of military equipment; Secretariat issue paper 4, on equipment for formed police units; Secretariat issue paper 5, on equipment for specialized police teams; Argentina issue paper 6, on camp units; Argentina issue paper 7, on expandable medical containers; India issue paper 1, on mine-protected vehicles; Spain issue paper 1, on closed-circuit televisions and jammers; and Pakistan issue paper 4, on equipment for rapid deployable battalions (Argentina, Bangladesh, France, India, Morocco, Norway, Pakistan, Senegal, South Africa, Spain, United Republic of Tanzania, United States);

(f) Bangladesh issue paper 5, Ghana issue paper 1, Morocco issue paper 1 and Zambia issue paper 2, on loss or damage in transit (Bangladesh, Benin, Ghana, Guinea, Malawi, South Africa, Togo, Zambia);

(g) Secretariat issue paper 18, Bangladesh issue paper 1, Senegal issue paper 1 and France issue paper 3, on loss or damage owing to hostile action or forced abandonment (Bangladesh, Burkina Faso, Chad, Guinea, Niger, Nigeria, Senegal, South Africa, Uganda, United Republic of Tanzania);

(h) Secretariat issue paper 8, Bangladesh issue paper 8 and Pakistan issue paper 2, on rotation of equipment at United Nations expense (Burkina Faso, India, Nigeria, Pakistan, South Africa);

(i) Secretariat issue paper 19, Indonesia issue paper 1 and Pakistan issue paper 1, on reimbursement for equipment in units registered in the Peacekeeping Capability Readiness System (Bangladesh, Fiji, Indonesia, Pakistan, United States);

(j) Secretariat issue paper 22, on reimbursement for gifted or donated equipment (Burkina Faso, France, Ghana, Sierra Leone, Uganda);

(k) Secretariat issue papers 7 and 21, on disposal and repainting of equipment (Argentina, Benin, Burkina Faso, Norway);

(l) Ghana issue paper 5, on provision of hangars by the United Nations;

(m) Bangladesh issue paper 7 and Brazil issue paper 1, on the costs covered by reimbursement for naval vessels.

1. Methodology for reviewing the rate of reimbursement

26. A paper submitted by a Member State noted that rate of reimbursement for all types of contingent-owned equipment is determined on the basis of costs reported by Member States that have not been validated. The paper therefore proposed that the Secretariat provide cost data for categories of contingent-owned equipment that the United Nations itself owns or is able to procure as part of the consolidated national cost data for the 2020 COE Working Group and that the Secretary-General issue a report on major equipment deployed to peacekeeping operations. This paper and its conclusions were accepted by members of the Working Group without amendment.

Recommendations

27. The 2017 Working Group recommended that:

(a) The Secretary-General provide cost data for those pieces of major equipment that already exist in United Nations inventory or are available through existing procurement contracts, including systems contracts as part of the consolidated national cost data for the 2020 COE Working Group;

(b) The Secretary-General submit a report prior to the 2020 COE Working Group on issues related to the calculation of reimbursement rates for contingent-owned equipment. The report will include an overview of the major equipment actually deployed to the field; an analysis of the categories of major equipment that amount to the largest share of reimbursement; categories of major equipment that are no longer heavily utilized; a survey of how other organizations determine estimated useful life and reflect depreciation; information on best practice in other organizations related to maintenance schedules; and any other information the Secretary-General may deem relevant to the Working Group in considering the appropriate methodology for calculating the reimbursement rates for contingent-owned equipment.

2. Changes to reimbursement eligibility

28. Based on a proposal from a Member State, a number of troop/police contributors indicated that, in many instances, contributing countries are asked to urgently deploy to field missions before the relevant memorandums of understanding or letters of assist have been finalized. According to the proposal, it has been suggested that deployment occur only after memorandums of understanding or letters of assist have been signed. The Secretariat explained that it is a general objective that memorandums of understanding or letters of assist are signed prior to deployment, but that may not be possible in some cases, owing to pressing operational requirements. It has also been indicated that the timely finalization of memorandums of understanding and letters of assist is a joint responsibility of both the troop/police contributors and the United Nations.

29. Under the same issue, two proposals were considered on reimbursement for equipment no longer required owing to changes to statements of unit requirements and on reimbursement of equipment procured or stocked for nominated units for specific missions but not deployed. Consensus could not be reached on either proposal.

Recommendations

30. The 2017 Working Group recommended that troop/police contributors and the United Nations make all efforts to finalize memorandums of understanding and letters of assist prior to the deployment of units to missions.

3. Classification of armoured personnel carriers

31. The sub-working group considered two similar proposals from the Secretariat and from a Member State to remove the current distinction between armed and unarmed armed personnel carriers for reimbursement purposes, and to rely instead on only the value of an armed personnel carrier in determining its level of reimbursement, noting that the capabilities required of any armed personnel carrier in any missions would be dictated by statements of unit requirement.

32. The discussion of the two proposals revealed that the Working Group would benefit more from a thorough study of various classification options along with their financial impact, based on actual numbers and categories of armed personnel carriers currently deployed to field missions.

Recommendations

33. The 2017 Working Group requested that the Secretariat submit an issue paper to the 2020 COE Working Group with different options for the classification of armoured personnel carriers.

4. Generators

34. A proposal was presented by a Member State to introduce a new system of identifying different functions of power generation to be based upon the global set of technical standards known as ISO 8528 (International Standards Organization 8528 series). Owing to concerns of some Member States related to the impact on existing generators, the proposal was modified to reflect that new categories would supplement, not replace, the existing categories of generators and that troop/police contributors could opt to continue to deploy generators under existing arrangements. Troop/police contributors could, at their own convenience and priority, shift over to the new contingent-owned equipment energy transition plan, which is not binding but incentive-based. In addition, a financial incentive was proposed for troop/police contributors that wish to substitute diesel generation with renewable energy generation, as were proposed by the Secretariat in a separate issue paper. As renewable technologies have a high capital cost and lower operating cost, this will translate to wet lease rates for diesel/renewable energy hybrid systems of 120 to 180 per cent of the equivalent 2017 reimbursement rates for diesel-only systems. This increased outlay from reimbursements to troop/police contributors is expected to be offset by mission fuel savings.

Recommendations

35. The 2017 Working Group recommended that:

(a) The following text be inserted into chapter 3, annex A, of the COE Manual:

> 12 bis. The categories of generators introduced in 2017 based on the ISO 8528 standard, which are detailed in appendix 1, will supplement, not replace, the existing categories of generators; troop/police contributors may opt to continue to deploy generators under the previous arrangements. A troop/police contributor may at its own convenience and priority shift over to the new COE energy transition plan, which is not binding but incentive-based. If it chooses to be reimbursed at the prime power, limited-time running power or emergency standby power rates, the troop/police contributor must adhere to the auditable site energy plan. The energy transition plan is not predicated on new types/capabilities of generators. Rather, it is focused on a methodology to use existing generators in a more efficient and environmentally friendly manner.

(b) An appendix 1 be added to chapter 3, annex A, of the COE Manual, as reflected in annex 5.1 to the present report.

5. New items of major equipment

36. The Secretariat and a number of Member States made proposals to add equipment increasingly deployed or required in missions to the list of major equipment in the COE Manual. The purpose of the proposals is to reduce the lengthy administrative procedure associated with negotiating this equipment as special cases that adversely impacts the deployment and/or finalization of memorandums of understanding.

37. The sub-working group examined and approved the proposed new equipment lists provided by the Secretariat, as well as updated calculations for generic fair market value (GFMV); maintenance, monthly non-United Nations petroleum, oil and lubricants; painting; and repainting.

Recommendations

38. The 2017 Working Group recommended that:

(a) The equipment in annex 3 to the present report be added to chapter 8, annex A, of the COE Manual;

(b) The term "(jeep type)" from Support Vehicle (military pattern), Truck, utility cargo (jeep type) (under 1.5 tons) in chapter 8, annex A, be deleted;

(c) The following be added to chapter 3, annex A, of the COE Manual:

30 alt. Unmanned aerial systems (UASs) are increasingly being deployed to United Nations peacekeeping missions. Their primary tasks are gathering aerial data and geospatial information for the peacekeeping mission and providing invaluable information for many operational contexts. Because of their flexibility and diversity, they can be tailored to fit many different tasks within every mission and for all components.

(a) Class I UAS: UAS only operated up to a limited altitude of not more than 1,000 feet above ground level with a maximum gross take-off weight of between 1 and 150 kilograms (kg) and within line of sight of the operator, with a maximum range up to 50 kilometres (km);

(b) Class II UAS: UAS with a maximum gross take-off weight of between 150 and 600 kg, equipped with a line-of-sight data link; normally operated up to 10,000 feet above ground level, with a maximum range of 200 km. Equipage limitations and airworthiness restrictions may limit these systems to operations in restricted or special-use airspace;

(c) Class III UAS: Medium-altitude, long-endurance (MALE) and high-altitude, long-endurance (HALE) UAS, maximum gross take-off weight of more than 600 kg and operated up to 65,000 feet above ground level with unlimited range, beyond line of sight. Equipped for limited or even unrestricted use airspace, with an equally less restrictive or even unrestricted airworthiness certificate;

(d) 30 bis. UAS of class I of up to 2 kg with altitude not to exceed 200 feet will be included as major equipment in the COE manual. All other types (more than 2 kg or altitude above 200 feet) will be addressed under letter of assist;

(d) The items "Camp unit, medium (50 persons)", "Camp unit, large (150 persons)" and "Office, communications and command posts" in the "Semi-rigid

structures" subcategory of chapter 8, annex A, be deleted and the remaining items in the subcategory moved into the "Accommodation equipment" category;

(e) The items "Camp unit, medium (50 persons)", "Camp unit, large (150 persons)" and "Ablution facilities (50 persons)" in the "Rigid structures" subcategory in chapter 8, annex A, be renamed "Camp unit, medium (5-50 persons)", "Camp unit, large (51-150 persons)" and "Ablution facilities (up to 50 persons)", respectively and moved into the "Accommodations equipment" category;

(f) The "Semi-rigid structures" and "Rigid structures" subcategories be deleted;

(g) The items "Tents for deployable squad, 8-10 personnel" and "Tents for deployable platoon, 35 personnel" in chapter 8, annex A, be renamed "Tents for deployable squad, up to 10 persons" and "Tents for deployable platoon, up to 40 persons";

(h) The following text be added to chapter 3, annex A:

47 bis. **Force protection equipment.** This equipment is meant to enhance UN units' force protection and allow them to confront the new techniques and procedures used against UN personnel and facilities. Current threats include the use of remote control improvised explosives devices (IED), infiltration and direct attack against UN facilities. Force protection equipment might include, but not be limited to, portable or vehicle-mounted Electronic Counter Measure (ECM) jammers, closed-circuit television, motion detectors and various types of movement sensors.

(i) Paragraph 44 of chapter 3, annex B, be amended as follows:

44 alt. When troop/police contributors are deployed on United Nations peacekeeping operations and they provide standard United Nations field mission accommodation for level II and/or III medical facilities, these items are reimbursed separately as major equipment. See chapter 8, annex A, Accommodation equipment, Camp unit medium for level II, and camp unit medium and large for level III. Ablution units will be reimbursed separately as major equipment.

45. (deleted)

6. Loss or damage during transit

39. Proposals were submitted by a number of Member States suggesting that equipment lost or damaged during transportation should be reimbursed when the repair costs amount to 5 per cent or more of GFMV of the individual equipment (instead of the current percentage of 10 per cent) or when the collective costs of loss or damage are more than $10,000, whichever is lower. The Working Group was provided information on the number and values of claims of damage/loss in transit received by the Secretariat over the past three years. However, the Working Group noted that the claims do not include those below the 10 per cent threshold and concluded that more inclusive data need to be documented in this regard.

Recommendations

40. The 2017 Working Group requested that the Secretariat provide data on claims for loss or damage during transit to the 2020 COE Working Group and that troop/police contributors also collect and provide actual data on loss or damage which are for less than 10 per cent of GFMV.

7. Loss or damage owing to hostile action or forced abandonment

41. To ensure fair reimbursement and possibly faster replacement of damaged or lost equipment, the Secretariat proposed that the $250,000 threshold cover the cumulative value of all incidents occurring across a single fiscal year (as determined by the budget period applicable to the mission in question), instead of a single action. A number of Member States proposed to lower the threshold to $100,000. Discussions on the proposals revealed general support for the Secretariat proposal along with an indication of the preference of troop/police contributors to have equipment lost/damaged in a single action reimbursed if it has relatively high value (above $100,000) to allow for its replacement or repair. The sub-working group agreed that reimbursement should be contingent upon receipt of a certification from the concerned troop/police contributor that the equipment will be replaced or repaired. Finally, the discussion also led to an agreement that the annual reimbursement should not exceed the amount of $5 million.

Recommendations

42. The 2017 Working Group recommended that:

(a) The total annual expenses related to the reimbursement of equipment under this modality should not exceed $5 million;

(b) Paragraph 18 (b) of chapter 2 of the COE Manual be amended as follows:

(b) alt **Hostile action/forced abandonment:**

(i) In cases of loss or damage resulting from a single hostile action or forced abandonment, troop/police contributors will assume liability for each item of equipment when the generic fair market value is below the threshold value of $100,000;

(ii) In cases of loss or damage resulting from hostile actions or forced abandonment, troop/police contributors will assume liability of equipment when the collective GFM of losses within one United Nations budget year for the mission is below the threshold value of $250,000;

(iii) For major equipment lost or damaged as a result of a single hostile action or forced abandonment, the United Nations will assume liability for each item of major equipment whose GFMV equals or exceeds $100,000 or for major equipment lost or damaged when the collective GFMV of such equipment equals or exceeds $250,000 for a series of hostile actions within one United Nations budget year. The value of the loss or damage is determined using GFMV. The reimbursement is made at GFMV rates less the equipment use charge and any other environmental and intensified operational use payment made by the United Nations for that equipment;

(iv) GFMV of the equipment reimbursed for a single hostile action or forced abandonment will not count towards GFMV of the collective annual threshold of $250,000;

(v) The reimbursement will be processed only after the troop/police contributor undertakes to replace or repair the equipment.

(c) Paragraph 14 of chapter 2, annex A, of the COE Manual be amended as follows:

14 alt. **Hostile action** means an incident from the action(s) of one or more belligerents, which has a direct and significant negative impact on the personnel and/or equipment of a troop/police contributor.

(d) Chapter 6 of the COE Manual be amended as follows:

9 alt. Troop/police contributors are responsible for major equipment loss or damage resulting from a single hostile action or forced abandonment when GMV is below the threshold value of $100,000 or when the collective GFMV for loss or damage is less than the threshold value of $250,000 for actions within one United Nations' budget year. The United Nations will assume liability for each item of major equipment whose GFMV equals or exceeds $100,000 in a single action or for major equipment lost or damaged when the collective GFMV of such equipment equals or exceeds $250,000 for a series of hostile actions within one United Nations budget year. No upper limit should be placed on justified claims.

10 alt. Troop/police contributors should submit claims for all incidents of damage or loss of equipment resulting from hostile actions or force abandonment. Reimbursement should be processed when GFMV of major equipment lost or damaged equals or exceeds $100,000 in a single action or when GFMV of major equipment lost or damaged equals or exceeds $250,000 within one United Nations budget year of the mission. When a troop/police contributor submits a claim for loss or damage in excess of $250,000, the method of calculation is GFMV, less the equipment use charge, that is, dry lease rate and any other environmental and intensified operational use payment made by the United Nations for that equipment.

13 alt. A mission-approved hostile action/forced abandonment factor determined by the technical survey team at the initiation of the mission is applied to each category of the self-sustainment rates and to the spares element (or one half) of the estimated maintenance rate of the wet lease rate and is not to exceed 6 per cent of the rates. This factor is intended to compensate troop/police contributors when GFMV of the equipment lost/damaged in a single action is less than $100,000 or when the aggregate GFMV of major equipment lost or damaged is less than $250,000 in a series of actions within one United Nations budget year.

13 bis. GFMV of the equipment reimbursed under the single action incident would count towards GFMV of the collective annual threshold of $250,000. However, the equipment will only be reimbursed once.

13 ter. The reimbursement will be processed only after the troop/police contributor undertakes to replace/repair the equipment.

8. Rotation of equipment at United Nations expense

43. Currently, certain categories of major equipment under prolonged deployment to peacekeeping missions that are non-operable or for which continued maintenance is not economical in the mission area can be considered for rotation at United Nations expense within a ceiling of $12.5 million. These categories are as follows: armoured personnel carriers (tracked), armoured personnel carriers (wheeled), engineering vehicles and support vehicles (military pattern). Although gaps in contingent-owned equipment remain generally high, the number of rotations under the modalities approved by the General Assembly in its resolution 68/282 of 5 August 2014 was relatively low. The Secretariat therefore proposed to expand the

eligibility for rotation at United Nations expense to other categories of equipment, including commercial-pattern support vehicles and vehicles lost/damaged through hostile action. Furthermore, the Secretariat proposed to set a threshold of 10 per cent of eligible deployed items being replaced before transport assistance is provided, given the diseconomies of scale associated with smaller shipments. Two Member States made separate proposals to include more categories to the ones eligible for rotation under this arrangement. The sub-working group agreed to the revised modalities proposed by the Secretariat and the inclusion of additional eligible categories of equipment. The Working Group in plenary decided to reduce the current ceiling of $12.5 million for such rotations, which has not been reached in the last three peacekeeping budget periods, to $8 million per year.

Recommendations

44. The 2017 Working Group recommended that:

(a) The total annual expenses related to the rotation of equipment under this modality should not exceed $8 million;

(b) Chapter 4 of the COE Manual be amended as follows:

24 alt. Certain categories of major equipment under prolonged deployment to peacekeeping missions that are non-operable, or for which continued maintenance is not economical in the mission area, can be considered for rotation at United Nations expense at the discretion of a mission contingent-owned equipment/memorandum of understanding management review board (CMMRB) in consultation with the applicable contingent commander, on the basis of operational requirements within the mission. These categories are as follows: armoured personnel carriers (tracked), armoured personnel carriers (wheeled), engineering vehicles and support vehicles (military pattern), support vehicles (commercial pattern), engineering equipment and aircraft/airfield support equipment.

25 alt. To be eligible for consideration, equipment must have been continuously deployed in peacekeeping operations for at least seven years or 50 per cent of its estimated useful life, whichever comes earlier. Rotation will be considered when the number of equipment proposed for rotation represents 10 per cent or more of the number of equipment in at least one eligible category. Equipment to be rotated at United Nations expense shall be treated by the United Nations as if it were contingent-owned equipment being repatriated at the end of the contingent's deployment to a mission area. Replacement equipment shall be treated as equipment being deployed under the contingent's initial deployment to a mission area.

25 bis. In addition to the categories included in paragraph 24, major equipment of eligible categories lost or damaged as a result of hostile action or forced abandonment will also be considered for rotation at United Nations expense. The requirements stipulated in paragraph 25 of at least seven years or 50 per cent of the estimated useful life will not apply to the equipment lost or damaged as a result of hostile action or forced abandonment.

9. Reimbursement for equipment for units registered in the Peacekeeping Capability Readiness System (PCRS)

45. In order to help defray a portion of costs of maintaining equipment for units registered in the Peacekeeping Capability Readiness System, the Secretariat proposed that troop/police contributors be paid half of the maintenance component of set reimbursement rates for major equipment during the period those units are

pledged to the System every 12-month period. The same proposal has been made by a number of troop/police contributors. After the discussion, it was agreed that contributors be paid 25 per cent of the maintenance component of set reimbursement rates for major equipment during the period these units are pledged to the System at the end of each 12-month period. The agreement subsumed other proposals submitted by two Member States in the same direction.

Recommendations

46. The 2017 Working Group recommended that the following paragraphs be inserted in chapter 8 of the COE Manual:

> **Reimbursement for major equipment of units at the rapid deployment level of the Peacekeeping Capability Readiness System**
>
> 13 bis. Units that reach the rapid deployment level (RDL) of the Peacekeeping Capability Readiness System (PCRS) should be paid 25 per cent of the maintenance component rates for major equipment during the period those units are pledged to PCRS, as incentives for troop/police contributors. The reimbursement payment should be made at the end of each 12-month period. During that 12-month period, the United Nations may perform at least one inspection of major equipment, and troop/police contributors may perform at least one mission rehearsal exercise, certified and evaluated by United Nations.
>
> 13 ter. Should a troop/police contributor be asked to deploy and then deploy within 60 days, reimbursement for time spent on RDL would be paid as soon as possible following deployment. A troop/police contributor that does not deploy when requested or that cannot deploy within 60 days when requested will forfeit any claims and recovery where needed of reimbursement for time spent at RDL.
>
> 13 quater. RDL, ideally, has the equivalent of an integrated brigade containing the following units: 3 infantry battalions, 1 logistics battalion, 1 force headquarters support company, 1 quick reaction force, 1 engineering company, 1 level II hospital, 1 military police company, 1 signals company, 1 medium utility helicopter unit, 1 attack helicopter unit, 1 tactical airlift unit.

10. Reimbursement for equipment gifted or donated to troop- or police-contributing countries

47. Under Security Council resolution 2036 (2012), the United Nations provides reimbursement for major equipment to the troop-contributing countries of the African Union Mission in Somalia (AMISOM). However, the Council stipulated in that resolution that "equipment gifted or donated to troop-contributing countries ... or where the ownership still remains with the donor are not eligible for reimbursement". The Secretariat submitted a proposal to introduce a new reimbursement modality in which troop/police contributors are reimbursed for the maintenance and no-fault incident factor for gifted or donated equipment, but not reimbursement for GFMV, acknowledging that the absence of reimbursement in such cases may create challenges for those troop/police contributors to maintain equipment. During the course of deliberations on this proposal, the sub-working group decided not to address the specific challenge in AMISOM, but instead to introduce a new modality for the reimbursement of donated equipment in United Nations peacekeeping missions under which troop/police contributors receiving equipment from third parties would be reimbursed for only the maintenance rate and no fault incident factor.

Recommendations

48. The 2017 Working Group recommended that:

(a) A new reimbursement modality be introduced in which troop- and police-contributing countries receiving equipment from third parties would receive reimbursement for only the maintenance rate and no fault incident factor;

(b) Chapter 2, annex A, of the COE Manual be amended as follows:

4 bis. Donated equipment is third party contingent-owned equipment offered to a troop- or police-contributing country for exclusive use by that troop- or police-contributing country in a particular United Nations mission that will revert to the original owner upon mission termination or earlier departure by the troop- or police-contributing country. For such equipment, the troop- or police-contributing country will be reimbursed the maintenance rate, including the incremental transportation factor and all other relevant factors provided that the third party certifies to the United Nations that it will not provide maintenance services.

(c) An additional option be added to chapter 2, annex B, of the COE Manual as follows:

Option 6

32. A third party offers major equipment to a troop/police contributor under bilateral arrangement. The troop/police contributor or service provider will be reimbursed the maintenance rate (including the incremental transportation factor and all other relevant factors), provided that the third party certifies in writing that it will not provide maintenance services.

33. The United Nations arranges with the troop/police contributor or a service provider to provide maintenance.

Logistics

34. A third party provides major equipment to the troop/police contributor.

35. Troop/police contributor provides:

(a) Minor equipment;

(b) Workshop equipment and tools;

(c) Spare parts and consumables;

(d) Maintenance personnel.

36. The United Nations provides accommodation, including storage facilities and utilities, to the troop/police contributor.

Finance

37. The equipment of a third party is offered bilaterally to the troop/police contributor at no cost to the United Nations.

38. Troop/police contributor receives reimbursement for maintenance rate under a memorandum of understanding based on scales in General Assembly documents.

(d) The following appendix be added to chapter 9, annex B, of the COE Manual:

Appendix 1 (List of third party-owned equipment)

11. Disposal methods and repainting

49. The issues of disposal and repainting of contingent-owned equipment were grouped together, as they both deal with repatriation of equipment. The Secretariat noted that while the United Nations provides reimbursement to troop/police contributors to repaint equipment upon its repatriation, payment is currently automatic, with no requirement for confirmation or certification of costs or action. It was proposed that a certificate of repainting of vehicles and other contingent-owned equipment be provided by the troop/police contributor before reimbursement is processed. The Secretariat also proposed to incorporate text into the COE Manual to encourage troop/police contributors to dispose of non-functional contingent-owned equipment that has been unserviceable for 12 continuous months within the ensuing 6 months. Both proposals were agreed by the sub-working group.

Recommendations

Repainting

50. The 2017 Working Group recommended that:

(a) The following paragraph be added to chapter 3, annex A, of the COE Manual:

46 bis. **Repainting**. In order to provide assurance that the equipment will be properly repainted and all United Nations markings will be duly removed, a troop/police contributor will deliver an official certification to the United Nations through its permanent mission indicating that it will not use the repatriated equipment in any activity before all United Nations markings are removed. The United Nations will reimburse troop/police contributors for repainting after receiving the certification. No claim is necessary, since the reimbursement cost for repainting is based on standard reimbursement rates in the COE Manual.

(b) The following paragraphs be added to chapter 4 of the COE Manual:

Disposal of contingent-owned equipment

31 bis. According to the general conditions for major equipment and self-sustainment provided by troop and police contributors under a memorandum of understanding, contingent-owned equipment remains the property of the troop and police contributor. Therefore, the disposal of contingent-owned equipment is a troop and police contributor's responsibility, unless ownership and/or responsibility for the contingent-owned equipment have been legally transferred to another entity

31 ter. Contingent-owned equipment may be disposed of by repatriation as stipulated in paragraph 8 of chapter 4 or in the mission area by sale, donation or disposal action by the mission on behalf of the troop and police contributor. In-mission disposal of contingent-owned equipment, by any method, must be in compliance with the mission status-of-forces agreement/status-of-mission agreement host country customs and tax rules, and regulations and procedures and other relevant host country and international laws.

31 quater. Troop and police contributors may request the assistance of the mission to dispose of contingent-owned equipment through arrangements established for disposal of equipment owned by the United Nations. In these cases, a formal agreement between the troop and police contributor and the mission will need to be prepared to formalize the hand-over of such equipment for subsequent disposal action. The agreement should specify that the troop/police contributor will make no claims for financial compensation for any potential revenue generated from the disposal action associated with the contingent-owned equipment.

31 quinquiens. Troop and police contributors may dispose of contingent-owned equipment by sale directly to other troop and police contributors, the mission, United Nations agencies, programmes and funds, non-governmental organizations and local governmental entities, or through the commercial sale. Troop and police contributors should inform missions of their intentions to sell contingent-owned equipment by providing details of the items to be sold. A formal statement from the troop and police contributor authorities indicating that the United Nations will have no further liability for the contingent-owned equipment sold, accompanied by the copy of the sale document identifying the buyer and, if required, tax payment and supporting documents shall be submitted to the mission.

31 sexiens. Troop and police contributors may dispose of contingent-owned equipment by donation to the host country Government, other troop and police contributors, United Nations agencies, programmes and funds, and non-governmental organizations. Troop and police contributors should inform the mission of the items to be donated and to whom. A formal statement from the troop/police contributor authorities indicating that the United Nations will have no further liability over the contingent-owned equipment once it has been donated to a third party.

31 septiens. The troop and police contributors shall complete all procedures required by their respective national regulations for the authorization of write-off and disposal of equipment. National contingent commanders shall certify that the appropriate national administrative write-off procedures have been followed authorizing the in-mission disposal of contingent-owned equipment.

31 octiens. The in-mission disposal of contingent-owned equipment should be an ongoing process, rather than an action undertaken shortly before contingent repatriation. Based on the formal contingent-owned equipment quarterly verification process, contingents may consider conducting regular in-mission contingent-owned equipment disposal analysis. This analysis should include a list of contingent-owned equipment that has become unserviceable beyond economical repair or obsolete with a recommendation for disposal actions. Contingent-owned equipment that is found to be non-functional for four consecutive quarters (12 months) must be repaired by the contingent or otherwise disposed of either through repatriation by troop and police contributor or through an in- mission disposal method within the following six months.

12. Provision of hangars by the United Nations

51. One Member State submitted a proposal for the United Nations to provide hangars and associated ground support facilities for contingent-provided aircraft, taking into account the high costs of these facilities. During the discussion, the Secretariat explained that the United Nations usually provides the facilities unless the host country provides as part of its management to its aviation facilities such as

airports. After the confirmation of the Secretariat, the Member State withdrew its proposal.

13. Costs covered by reimbursement for naval vessels

52. Under this item, the sub-working group considered two proposals. The first proposal was submitted by a Member State requesting a review of reimbursement rate for ships deployed to the United Nations Interim Force in Lebanon. Taking into account that there was no consensus on the proposal, the discussion on it has been closed.

53. Another proposal has been submitted by another Member State requesting that the reimbursement amount indicated in the letter of assist be itemized in accordance with the services provided under this letter of assist. Owing to concerns that this change would lead to increases in the amounts of letters of assist, it was agreed in the sub-working group to indicate that this provision should not affect the negotiated amounts.

Recommendations

54. The 2017 Working Group recommended that the second bullet point in paragraph 4 (b) in chapter 4, annex, be replaced with the following:

- Itemized reimbursement for services provided in categories to be negotiated, without prejudice to the total amount of the letter of assist

B. Self-sustainment and cross-cutting issues

55. The self-sustainment sub-working group considered the following issues relating primarily to self-sustainment or cross-cutting issues and nominated focal points to coordinate deliberations on those issues:

(a) Secretariat issue paper 6, France issue paper 4 and India issue paper 2, on standards of accommodation (France);

(b) Bangladesh issue paper 9 and South Africa issue paper 2, on ammunition (Bangladesh);

(c) Morocco issue paper 2 and Uruguay issue paper 1, on Internet access (Uruguay);

(d) Brazil issue paper 3, on transportation for self-sustainment resupply (Brazil);

(e) Pakistan issue paper 6, on adherence to uniform verification standards across all missions (Pakistan);

(f) Secretariat issue paper 11, on fuel containment basins (Nigeria);

(g) Secretariat issue paper 17, Indonesia issue paper 4, Malawi issue paper 1 and Zambia issue papers 1 and 4, on intensity of operations; Bangladesh issue paper 4 and Zambia issue paper 3, on extreme environmental conditions; and France issue paper 2, on variable reimbursement rates depending on risk exposure (France, Malawi, Zambia);

(h) Secretariat issue papers 9, 23, 24 and 25, on changes to the model memorandum of understanding;

(i) Finland issue paper 4, on the clarification of responsibilities between the United Nations and a troop- or police-contributing country (Finland);

(j) Secretariat issue paper 26, on technical and editorial changes to the COE Manual (Nigeria).

1. Standards of accommodation

56. The current COE Manual requires that the Secretariat provide contingents with "hard-wall" accommodation within six months of deployment. Three proposals on the standard of accommodation were considered by the sub-working group. The proposal of the Secretariat with respect to establishing a new unified standard of United Nations field mission accommodation was accepted by the sub-working group; a proposal to amend the Manual so that the terminology, the definitions and the standards associated with existing longer-term accommodation references be reduced to a single requirement, being "standard United Nations field mission accommodation". This proposal also addressed issues raised in one of the other proposals. The remaining proposal, on outsourcing of the provision of semi-rigid accommodation, was amended during the discussion to focus on provision through letters of assist. The proposal was withdrawn owing to absence of consensus. It was agreed in the sub-group that the definitions and the standards for standard United Nations field mission accommodation, as proposed by the Secretariat, would be established as minimum standards that can be met by various solutions. In addition, an energy efficiency supplement of 5 per cent at the standard reimbursement rate for accommodation items, which are provided by troop/police contributors is recommended as an incentive for the deployment of more environmentally friendly structures.

Recommendations

57. The 2017 Working Group recommended that:

(a) References to "rigid", "permanent rigid", "semi-rigid" and "hard-wall" be changed to "standard United Nations field mission accommodation" throughout the COE Manual;

(b) Chapter 3, annex A, and chapter 9, annex D, be amended as follows:

12 ter. The provision of renewable energy electrical generation equipment to replace any or all of the fuel generators is encouraged. Such provision will be assessed as a special case.

26 alt. Accommodation types shall be defined by the minimum standards and characteristics listed below.

26 bis. Standard United Nations field mission accommodation is defined as a facility in which:

(a) The structural framework is composed of a truss system or wood, structural steel, reinforced concrete, structural masonry or similarly rigid material under proper design;

(b) The structural framework is interconnected with a tensioned membrane or a solid exterior wall and roofing system for a weather-tight enclosure;

(c) The facility is erected upon a properly designed substructure system with an adequate foundation taking into account in-situ soil conditions and the facility's dead loads, live loads including the occupants, wind, snow and seismic factors and is secured appropriately to the ground against horizontal and vertical loads, taking into account the environmental conditions within the mission's area of responsibility;

(d) The exterior enclosure has adequate insulation, interior liner and/or adequate wall thickness designed to reduce heating and cooling requirements with minimum R values as defined by the Director, Logistics Support Division, Department of Field Support;

(e) The facility includes an integrated flooring system above ground level or a constructed slab on grade designed to carry the live and dead loads of the occupants;

(f) The facility has adequate doors and windows, all of which can be secured, covered with insect screens and with the total openings being not less than 5 per cent of the total wall area of the facility to enable adequate ventilation, including cross ventilation, for the occupants;

(g) The facility should be capable of meeting the fire protection/suppression standards of the United Nations, in addition to the firefighting requirements for contributing countries as per the COE Manual;

(h) Accommodation services should include:

(i) Adequate power and lighting systems for the intended occupancy;

(ii) A heating, ventilation and air-conditioning system for the intended occupancy, taking into account the environmental conditions within the mission's area of responsibility. Generally, air-conditioning is to be provided when the seasonal maximum ambient outdoor shade temperature of the location exceeds 86 degrees Fahrenheit or 30 degrees Celsius for periods exceeding 30 days in a year and heating is to be provided when the minimum ambient outdoor temperature is zero degrees Celsius or 32 degrees Fahrenheit or below for periods exceeding 30 days in a year.

28 bis. Environmental enhancements. Environmental enhancements to accommodation are considered to be additions to the aforementioned accommodation standards with the effect of reducing energy use and thus decrease generator fuel usage and greenhouse gas emissions. Enhancements include all or some of the following:

(a) Double roofing and wall shading;

(b) Additional thermal insulation for wall, roof, floor and doors, as applicable;

(c) Air conditioner and heating systems with appropriate sizing and energy efficiency ratios.

(c) Chapter 3, annex B, and chapter 9, annex E, be amended as follows:

22 bis. The use of renewable energy electrical generation equipment to provide electrical self-sustainment in lieu of all or part of fuel powered generators is encouraged.

Tentage

34 bis. The provision of accommodation by a contingent shall be decided during the initial deployment discussions and planning for each particular contingent. On a mission start-up, most contingents will be expected to deploy with tentage to accommodate their troops for at least six months. Dependent on operational or administrative requirements, either the United Nations or a troops or police contributor may initiate discussions for the contributing country to provide a specific contingent with long-term accommodation. This

may occur either on initial deployment or during the contingent's deployment. The long-term accommodation provided by the contributing country will meet the minimum standards listed in chapter 3, annex A, paragraph 26 bis.

34 ter. In general terms, for contingents initially deployed and accommodated in self-provided tentage, the United Nations shall aim to provide accommodation meeting United Nations field mission accommodation standards listed in chapter 3, annex A, paragraph 26 bis within six months after deployment. The style of accommodation provided by the United Nations will be decided based on mission operational needs (including mission time frames), deployment mobility needs, sustainability requirements, mission administrative capabilities, local infrastructure capacity and logistics demands. The type of accommodation decided upon would range from high-quality tensioned membrane facilities to prefabricated buildings to normally constructed facilities.

35 alt. The United Nations can provide this capability as a complete self-contained function subject to the agreed overarching principles for the provision of self-sustainment categories. When the United Nations notifies a troop/police contributor prior to the contingent deploying that this capability is not required, the troop/police contributor will not receive reimbursement for this category. Contingents will initially receive tentage reimbursement for up to six months if not accommodated by the United Nations. If the United Nations confirms that the capability is required, the deploying contingent will continue to decide if it is to provide its own tentage capability, and be reimbursed accordingly. If a contingent is accommodated in standard United Nations field mission accommodation but is required to retain a tentage capability for part of the unit to satisfy future operational requirements, the quantity of tentage agreed upon may be reimbursed as major equipment following negotiations between the troop/police contributor and the United Nations.

36 alt. The United Nations can provide this capability as a complete self-contained function subject to the agreed overarching principles stated above. When the United Nations does not provide standard United Nations field mission accommodation for a contingent after six months in tentage, the troop/police contributor will be entitled to receive reimbursement at both the tentage and accommodation self-sustainment rates. This combined rate will continue until personnel are housed to the standard specified in chapter 3, annex A, paragraph 26 bis. The Secretariat may request a temporary waiver of the application of this dual payment principle for those short-duration missions where the provision of standard United Nations field mission accommodation is demonstrably and clearly impractical and not cost-effective.

36 bis. An environmental enhancement supplement of an additional 5 per cent of the reimbursement to troop/police contributor will be added if the provided tentage is shown to have additional measures included that are designed to improve the heating and cooling effectiveness and efficiency of the facility, as per the standards defined in paragraphs 26 bis and 28 bis.

Accommodation

37 alt. To receive the accommodation self-sustainment reimbursement rate, the troop/police contributor must (read in conjunction with the Guidelines to Troop-Contributing Countries):

(a) Purchase or construct facilities to accommodate the contingent's personnel. These facilities shall comply at a minimum with the requirements of

standard United Nations field mission accommodation as defined in chapter 3, annex A, paragraph 26 bis. The rate is based on a standard of 9 square metres per person. Where ablutions are provided or are being reimbursed separately, the rate is based on a scale of accommodation of 8 square metres per person;

(b) (deleted)

(c) Provide furniture for eating facilities where necessary;

(d) Provide offices/workspaces in facilities as defined in chapter 3, annex A, paragraph 26 bis. as applicable;

(d) bis The scale of ablutions provided is to be in accordance with the scales adopted by United Nations for deployment of officers and troops in missions. The ablutions should complement the type of accommodation facility being employed and meet the requirements of long-term facilities as defined in chapter 3, annex A, paragraph 26 bis, have cold/hot running water for the shower and toilets as per the water scale defined by the mission or by the United Nations, have adequate plumbing fixtures and fittings to maintain standards of hygiene and have an appropriate and environmentally friendly drainage system meeting field mission wastewater standards. The ablution facilities provided are to account for adequate gender separation for troops if required;

(e) To ensure proper crew rest and safe conduct of flights, either the United Nations or the troop-contributing country (as agreed) should make every effort to provide aircrews of aviation contingents with the following accommodations: pilots (as stipulated in the letter of assist) to be accommodated in standard single rooms; aircrew (air gunner/engineer/masters, etc.) to be accommodated in two-person rooms.

38. When the United Nations provides accommodation to an equivalent standard, the troop/police contributor does not receive reimbursement for this category.

39. Warehouses and equipment storage are not included in the accommodation self-sustainment reimbursement rate. This will be handled either through facilities reimbursed as major equipment or on a bilateral special-case arrangement between the troop/police contributor and the United Nations.

39 bis. An environmental enhancement supplement of an additional 5 per cent of the agreed reimbursement to troop/police contributors will be added if the provided warehouses and equipment storage are shown to have additional measures included that are designed to improve the heating and cooling effectiveness and efficiency of the facility, as per the standards defined in paragraphs 26 bis and 28 bis.

40. When the United Nations is unable to provide accommodation to an equivalent standard and the contingent rents a suitable structure, the troop/police contributor will be reimbursed the actual rental cost on a bilateral special case arrangement between the troop/police contributor and the United Nations.

(d) Chapter 3, annexes A and B, appendices 3 and 4, be amended by changing item 3 (c) under "Infrastructure requirement" from "Fixed shelters" to "Standard United Nations field mission accommodation";

(e) Chapter 3, annexes A and B, appendix 16, table 3, be amended by changing the heading "Minor engineering responsibilities when the United Nations

provides accommodation (i.e., prefabricated hard-wall buildings like Corimec, Agmin and Shellbox, conventional hard-wall buildings and prefabricated soft-wall buildings)" to "Minor engineering responsibilities when the United Nations provides accommodation".

2. Ammunition

58. Under this item, the sub-working group considered two papers. One proposed more efficiently utilizing spare capacity within United Nations or United Nations-contracted transportation to provide for resupply of authorized ammunition and explosive ordnance. That was agreed by the sub-working group after clarification was made that such transportation would be cost-neutral. A second paper proposing the addition of a table of costs for ammunition in the COE Manual was withdrawn in favour of the proposal on resupply of ammunition agreed by the sub-working group.

Recommendations

59. The 2017 Working Group recommended that the following text be added to the end of paragraph 32 of chapter 3, annex A:

> During the rotation of a contingent when the United Nations is providing transportation for a troop- or police-contributing country, where there is spare capacity within United Nations or United Nations-contracted transportation, to achieve greater efficiencies for troop- and police-contributing countries, this spare capacity can be used to move authorized ammunition and explosive ordnance to replace expended or expired stock. The use of any spare capacity must be cost neutral to the United Nations, and in such a case, this efficiency gain will be of no charge to the troop- or police-contributing country.

3. Internet access

60. Under this item, the sub-working group considered two proposals. A combined proposal detailed that the provisions of Internet services should be split from the provision of the equipment for Internet access, whereby the service would be the United Nations responsibility and the equipment would be the troop/police contributor's responsibility. Additionally, the equipment provided was requested to increase and accordingly the need to adjust the reimbursement rate was outlined. Member States raised concerns regarding the high financial implications resulting in case the United Nations would provide the Internet service based on clarifications of the Secretariat about cost information. No agreement on the combined proposal has been reached in the sub-working group.

Recommendations

61. The 2017 Working Group recommended that the Secretariat provide data on the cost of providing Internet access to the 2020 COE Working Group.

4. Transport for self-sustainment resupply

62. A proposal to unify rules of costs of transport for resupply between self-sustainment and major equipment was withdrawn following discussions by members of the sub-working group on the financial implications of the proposal. The proponent of the proposal decided to withdraw it and to present an amended version, taking the concerns of the sub-working group into account, to the 2020 COE Working Group.

5. Standards of verification for self-sustainment

63. A paper submitted by a Member State on standards of verification contained two related proposals. The first, to reduce the variation in how standards of verification are applied between different missions, was agreed in the sub-working group with amendments. The second proposal, to introduce a sliding scale for self-sustainment reimbursement, was strongly objected to by members of the sub-working group, who believed that that proposal undermined the fundamental principle that reimbursement for self-sustainment could only be paid if services agreed were provided. An amended proposal emphasizing the principle of reasonability on the part of inspectors in missions was agreed by the sub-working group.

Recommendations

64. The 2017 Working Group recommended that chapter 3 be amended as follows:

> 6 alt. In the conduct of the verification process, a "reasonability" view is to be employed when assessing the yielded results, including whether positive steps have been taken towards fulfilment of the MOU, that is to say the troop/police contributor and the United Nations have taken all reasonable measures and have met the spirit of the MOU, if not the full substance, and have also taken into account the importance of the subject and length of period where the MOU has not been fulfilled. In line with this principle, in exceptional one-off circumstances where the inspection criteria are not met, the troop/police contributor can apply to the United Nations for special dispensation. In such circumstances the United Nations may provide special dispensation for self-sustainment reimbursement to the troop/police contributor. The guiding principle in determining "reasonability" is whether the material to be provided by the troop/police contributor as well as by the United Nations will meet its military/police function at no additional cost to the United Nations or the troop/police contributor, other than those provided for in the MOU. However, in verifying medical services at any level, all medical equipment, consumables and personnel required to maintain the capacities and capabilities stated as the medical self-sustainment standards in annex B to the present chapter must be present.
>
> 8 alt. The inspection teams, when verifying major equipment and self-sustainment, will apply the standards approved in General Assembly documents, as exclusively detailed in annexes A and B to the present chapter. These standards are also included in the MOU between the troop/police contributor and the United Nations.

6. Fuel containment basin

65. The Secretariat proposed the construction of a fuel containment basin to capture petroleum, oil and lubricant leaks and spills to reduce the environmental impact of United Nations missions. The Secretariat provided clarification to address concerns about additional capabilities and responsibilities expected of troop/police contributors as part of the proposal. However, no consensus was ultimately reached on the proposal, due in large part to concerns related to its financial implications.

7. Mission factors

66. Under this item, the sub-working group considered eight proposals to either increase the current 5 per cent maximum for the three mission factors or to change how mission factors were calculated. One proposal, submitted by the Secretariat to

respond to a request by the 2014 COE Working Group,[8] called for the introduction of a "scope of task assigned" multiplier to be applied to the intensity of operations factor. Eligibility for this multiplier would be considered on a quarterly basis by mission leadership on the basis of actual performance. Although most members of the sub-working group supported the proposal in principle, many raised concerns about how the proposal would be implemented, including the lack of clarity regarding objective criteria by which to measure the scope of tasks assigned to different units.

67. The sub-working group decided to address seven proposals, including the Secretariat proposal, by requesting the Secretariat to undertake a comprehensive review of the methodology for calculating the mission factors. The remaining proposal, on reflecting operational risks in the mission factors, was reformulated over the course of the discussions into a proposal to change how the hostile action/forced abandonment factor is calculated. The revised proposal approved by the sub-working group re-weighted the elements within the hostile action/forced abandonment factor to increase the weight of elements and raised the maximum level of the factor from 5 to 6 per cent.

Recommendations

68. The 2017 Working Group recommended that:

(a) The Secretary-General undertake a comprehensive review of the methodology for calculating mission factors to validate whether the mission factors adequately account for the impact of operational conditions on contingent-owned equipment and self-sustainment; review the terrain profile component of the extreme environmental conditions factor, which is seen as overly restrictive; and consider the introduction of a methodology that acknowledges the intensity of operations for individual units;

(b) The maximum level of the hostile action/forced abandonment factor be increased from 5 per cent to 6 per cent, and references to the maximum level of the hostile action/forced abandonment factor be corrected throughout the COE Manual;

(c) The decision sheet for the hostile action/forced abandonment factor in chapter 7, annex B, be amended as indicated in annex 5.2 of the present report.

8. Changes to the model memorandum of understanding

69. The Working Group approved the inclusion of the statement of unit requirement into the model memorandum of understanding, a recommendation of the High-level Independent Panel on Peace Operations,[9] by acclamation.

70. Members of the Working Group were sharply divided on whether the Working Group was the appropriate forum for discussing all proposals for changes to the model memorandum of understanding. One group of Member States argued that the Working Group could only address aspects of the model memorandum of understanding pertaining to operational issues, such as statements of unit requirements and environmental management. This group argued that, as issues pertaining to personnel, such as personnel reimbursement, were outside the remit of the Working Group, issues pertaining to personnel, such as gender and sexual exploitation and abuse, were also outside the remit of the Working Group. Another group of Member States argued that the Working Group was the appropriate forum for such discussions as it was the forum in which changes to the COE Manual were

[8] A/C.5/68/22, para. 108 (b) (ii).
[9] A/70/95-S/2015/446.

discussed, and the model memorandum of understanding was contained in the COE Manual. The group also pointed out that the Working Group agreed to consider these issues when it approved the agenda of the Working Group. The Working Group did not reach consensus on the proposed changes to the model memorandum of understanding related to gender or to sexual exploitation and abuse.

71. With regard to the proposed changes related to environmental management, some members of the self-sustainment sub-working group raised concerns about the requirement of contingents to leave the locations in the condition in which they were provided, prompting the inclusion of a caveat to take operational requirements into account.

Recommendations

72. The 2017 Working Group recommended that:

(a) The relevant statement of unit requirement that defines the operational capabilities and capability standards to be met by a unit and the tasks that will be undertaken be included as an annex to the memorandum of understanding;

(b) Any deviations from the statement of unit requirement be considered by the Secretariat based on its effect on the capabilities, capability standards and ability to complete identified tasks, as well as to ensure that there is no unacceptable or unmitigated operational impact in the ability of the military or police component to adequately fulfil its mandate, and records of such deviations will be shared with the troop- or police-contributing country and filed together with the memorandum of understanding;

(c) Changes to the statement of unit requirement be issued and communicated to a troop- or police-contributing country as amendments to the memorandum of understanding;

(d) Article 7 septies of the model memorandum of understanding in chapter 9 of the COE Manual be amended as follows:

> 7.28 alt Troop-contributing countries will ensure that all members of the national contingent conduct themselves in an environmentally conscious manner. They shall observe established United Nations rules and regulations applicable to the functioning of peacekeeping operations, endeavouring to achieve full compliance with United Nations environmental and waste management policies and procedures, as set out in annex I (Environmental policy for United Nations field missions) to the present memorandum of understanding.
>
> 7.28 bis National contingents will appoint, where requested by the Force Commander, officials to serve as environment focal points. National contingents undertake that they will "do no harm" to the local environment (including wild plants and animals) and, upon departure, will leave the premises and physical environment in the condition it was provided to them. The only exceptions to this requirement to remediate will be in exceptional cases of operational imperative where the Mission has been informed. They will practice no littering around the bases or on patrols. They will take concrete steps to conserve water and energy, reduce and segregate waste, and properly manage hazardous waste and waste water for which they are responsible. Where possible, the use of renewable energy will be prioritized.
>
> 7.29 alt The United Nations will provide assistance to national contingents to enable them to comply with United Nations environmental and waste management policies and procedures. Such assistance shall include providing

national contingents with the agreed infrastructure and services that enable them to operate in an environmentally conscious manner.[10] The United Nations will provide mission-specific briefings, induction and continuing training on field mission procedures regarding environmental and waste management, comprising practical actions that can be taken by uniformed personnel to ensure responsible presence.

(e) Chapter 9, annex H, be amended to include the following point:

- Litter or improperly dispose of any materials or equipment.

9. Roles and responsibilities

73. A proposal to include a diagram to the COE Manual to clarify the roles and responsibilities of the United Nations and troop- and police-contributing countries was withdrawn, following receipt of information from the Secretariat.

10. Technical and editorial changes to the COE Manual

74. The Secretariat submitted a proposal to the sub-working group to consider inconsistencies in the 2014 COE Manual and integrating relevant decisions by the General Assembly, as well as references to the Medical Support Manual. Two Member States raised concerns regarding the wording of a number of paragraphs affected, which were subsequently clarified by the Secretariat.

Recommendations

75. The 2017 Working Group recommended that:

(a) Inconsistencies in the 2014 edition of the COE Manual be addressed, including areas where decisions of the 2014 COE Working Group were not properly reflected in the text;

(b) Relevant decisions of the General Assembly taken since the approval of the recommendations of the 2014 COE Working Group be reflected in the COE Manual;

(c) Issues pertaining to medical support be consolidated in a dedicated section, which also references the corresponding sections of the Medical Support Manual.

C. Medical support

76. The medical support sub-working group considered the following issues relating primarily to medical support services:

(a) Secretariat issue papers 12 and 14 and Argentina issue paper 5, on medical equipment;

(b) Secretariat issue paper 15, on medical self-sustainment rates;

(c) Secretariat issue paper 13, Argentina issue paper 9, Senegal issue paper 3 and Zambia issue paper 5 on medical personnel;

(d) Argentina issue paper 1, proposing introduction of an orthopaedic basic module, Argentina issue paper 2 and Brazil issue paper 2, proposing introduction of a physiotherapy module, Argentina issue paper 3, proposing introduction of an

[10] Guidelines for troop-contributing countries deploying military units, chapter 1.8.2.6 and 1.8.2.7, sub-para. 89.

internal medicine module, and Argentina issue paper 4, proposing introduction of a laboratory module;

(e) Secretariat issue paper 16, proposing establishment of stand-alone aero-medical evacuation team;

(f) Argentina issue paper 8, proposing inclusion of surgery into the fee-for-service schedule;

(g) France issue paper 1, on the outsourcing of medical operational support;

(h) Indonesia issue paper 2, on eligibility for medical self-sustainment reimbursement.

1. Medical equipment

77. The medical sub-working group considered proposals from the Secretariat to introduce new requirements for medical equipment in various medical facilities. The sub-working group did not agree with the proposal of the Secretariat to introduce an incinerator for health-care waste management, replacing the line items for "Medical disposables (contaminated) collection and disposal system" and "Biological waste disposal system", because of the apparent contradiction with the United Nations responsibility for hazardous waste disposal in peacekeeping missions. Members of the sub-working group raised concerns regarding discrepancies about the price of blood gas analysers and an alternate GFMV was determined following research by members of the sub-working group and consultations with the Secretariat. The sub-working group also did not agree with the proposal to include the deployment of a CT scan (multi-slice) in the radiography room of a level III medical facility on account of the high cost of the equipment.

78. The sub-working group also considered a proposal by the Secretariat to add self-sustainment rates for each medical module. While members of the sub-working group agreed on the need for such rates to be determined, they were not able to reach consensus on the proposal but indicated their intention to address the issue during the 2020 session of the Working Group.

Recommendations

79. The 2017 Working Group recommended that:

(a) The "without X-ray" option be removed from chapter 3, annexes A and B, appendix 3.1, section II (Dental services, consultation, treatment and X-ray), and chapter 3, annexes A and B, appendix 6 (Dental-only facility), of the COE Manual;

(b) "X-ray machines" be replaced with "Digital X-ray machines" in chapter 3, annexes A and B, appendices 3.1 and 4.1, section I.D. (Radiography room), chapter 3, annexes A and B, appendix 3.1, section II (Dental services, consultation, treatment and X-ray), and chapter 3, annexes A and B, appendix 6 (Dental-only facility), of the COE Manual;

(c) "Basic blood analyser" be replaced with "Digital hematology analyser" and "Digital biochemistry analyser" in chapter 3, annexes A and B, appendices 3.1 and 4.1, section I.E. (Laboratory) and in chapter 3, annexes A and B, appendix 5 (Laboratory only facility) of the COE Manual;

(d) "Blood gas analyser" be added into chapter 3, annexes A and B, appendices 3.1 and 4.1, section IV. B. (Intensive care wards) of the COE Manual;

(e) The equipment lists in chapter 3, annexes A and B, appendices 3.1 and appendix 4.1 be amended as indicated in annexes 4.2, 4.3, 4.4 and 4.5 of the present report.

2. Minimum composition of personnel in medical facilities

80. No consensus was reached by members of the medical sub-working group on the proposed inclusion of support and administrative staff to the minimum composition of level II and III medical facilities. Members of the sub-working group believed that increasing the minimum composition could prove overly restrictive to troop-contributing countries and noted that the specific composition could be adjusted through negotiations on the memorandum of understanding.

3. Introduction of new modules

81. The medical sub-working group acknowledged the importance of physiotherapy services and decided to establish dedicated physiotherapy modules, instead of providing physiotherapy services through orthopaedic modules. No consensus was reached on other proposals related to internal medicine, laboratory or orthopaedic modules.

Recommendations

82. The 2017 Working Group recommended that:

(a) The physiotherapist be removed from the manpower requirement for orthopaedic modules and paragraph 60 (e) be amended accordingly;

(b) The line item "Short wave therapy unit" be removed from chapter 3, annexes A and B, appendix 10 (Orthopaedic module);

(c) Appendix 10 bis be added to chapter 3, annexes A and B, as indicated in annex 4.10 of the present report.

4. Stand-alone aero-medical evacuation teams

83. Considerable discussion took place within the medical sub-working group on the Secretariat proposal to separate aero-medical evacuation teams (AMET) from level II medical facilities, place them under the responsibility of the mission chief medical officer and increase both their personnel and equipment to allow them to deploy as two sub-teams. The sub-working group ultimately decided to recommend removing AMET personnel from the standard composition of level II medical facilities personnel table and instead to form it, with the same personnel composition, as a module under the command and control of level II medical facility, underlining the option to employ an AMET at opportune mission locations as a stand-alone unit.

84. The sub-working group decided to recommend furthermore increasing the equipment in aero-medical evacuation modules to two sets. As no agreement was reached by the sub-working group on medical self-sustainment rates, it was decided to explicitly indicate that the module would replenish its consumables through level II medical facilities.

Recommendations

85. The 2017 Working Group recommended that:

(a) Chapter 3, annex B, paragraph 60 (d) (iv), be amended by deleting the following two lines:

- 2 x aero-medical team officer
- 4 x aero-medical team nurses/paramedics

(b) Chapter 3, annex B, paragraph 60 (e), be amended as follows:

IV bis. Aero-medical evacuation team module

1. Treatment capability

- Treat, stabilize and transport emergency patients under medical care in dedicated medical rotary/fixed-wing platforms.

2. Manpower requirements

- 2 x aero-medical team officer
- 4 x aero-medical team nurses/paramedics

(c) Chapter 3, annexes A and B, appendix 7, be amended as indicated in annex 4.6.1 of the present report.

5. Inclusion of surgery in the fee-for-service schedule

86. The medical sub-working group strongly supported the inclusion of surgery in the fee-for-service schedule. Some members, however, raised concerns that the suggested prices might be considered high for the local population. Members of the sub-working group agreed to specify that locally recruited staff would be exempt from paying fees for surgery in emergency cases.

Recommendations

87. The 2017 Working Group recommended that the fee-for-service schedule be amended as indicated in annex 4.11 to the present report.

6. Outsourcing of medical support

88. There was no support in the sub-working group for a proposal to include a section in the COE Manual on the outsourcing of medical support by troop- and police-contributing countries.

7. Changes to reimbursement eligibility

89. Members of the medical sub-working group supported a proposal to allow troop- and police-contributing countries to be reimbursed the cost of medical supplies and equipment when they are damaged owing to actions of the host Government.

Recommendations

90. The 2017 Working Group recommended that the following paragraph be inserted into chapter 3, annex B:

> 56 bis. In the case that medical services cannot be provided owing to unforeseen logistical challenges beyond the control of the troop/police contributor as a result of rules and policies of the host country preventing the self-sustainment of medical supplies, the reimbursement for lost or damaged medical material will be made at cost. It is the responsibility of the United Nations to determine the extent of such circumstances in whole or in part, in consultation with the troop/police contributor.

VI. Closing remarks

91. The final plenary meeting of the Working Group opened with a moment of silence to honour the memory of peacekeepers who made the ultimate sacrifice in the service of peace.

92. Closing remarks were delivered by the representative of the United States and by the Chair of the Working Group, following action on all outstanding issues. The representative of the United States opened his remarks by thanking the Secretariat for its efforts in supporting the Working Group, both before and during its session. He noted that the recommendations of the Working Group, which were made by consensus, provided an example of the strengthened partnership between major troop- and police-contributing countries and major financial contributors. He expressed the disappointment of his delegation that the Working Group was unable to engage in substantive discussions on changes to the model memorandum of understanding related to sexual exploitation and abuse despite the fact that the issue was within the remit of the Working Group.

93. In his closing remarks, the Chair acknowledged how the work of the Working Group had a direct bearing on the safety and security and the lives of the people on the ground, saluted the invaluable work of the peacekeepers who work hard risking their own lives in pursuit of peace around the world, and reflected that the essence of what the delegates did in the Working Group was to further enable the peacekeepers to do their job better. He thanked all of the different groups that contributed to make the Working Group a success, including experts from capitals, delegates from permanent missions in New York, the Vice-Chair of the Working Group, the Chairs and Vice-Chairs of the sub-working groups, the Chef de Cabinet and the Under-Secretaries-General for Peacekeeping Operations and Field Support, the Secretariat and the team supporting him in the Permanent Mission of Nepal.

Annex 1

2017 COE Working Group

Revised rates of reimbursement for major equipment[a]

(United States dollars)

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
Accommodation	Ablution facilities (up to 50 persons)	**9 929**	10	**88**	**84**	**172**	0.2			
	Camp unit, small (5 persons)	**5 440**	12	**39**	**39**	**78**	0.2			
	Camp unit, medium (5 to 50 persons)	**81 069**	15	**469**	**464**	**933**	0.2			
	Camp unit, large (51 to 150 persons)	**342 129**	15	**1 967**	**1 958**	**3 925**	0.2			
	Maintenance workshop	**32 053**	7	**127**	**387**	**514**	0.2			
	Office, communications and command posts	**20 678**	15	**119**	**118**	**237**	0.2			
	Tents for deployable platoon (up to 40 persons)	**12 982**	5	**97**	**219**	**316**	0.2			
	Tents for deployable squad (up to 10 persons)	**3 840**	5	**10**	**65**	**75**	0.2			
	Warehousing and storage	**32 171**	7	**127**	**388**	**515**	0.2			
Aircrew kit (only for crew members)	Aircrew kit (only for crew members) — set	**1 694**	–	**25**	**28**	**53**	0.1			
	Aircrew bag	**44**	3	**0**	**1**	**1**	0.1			
	Coverall (aircrew) (set of 2)	**291**	5	**0**	**5**	**5**	0.1			
	Ear plug	**2**		**0**	**0**	**0**	0.1			
	Flying gloves	**22**	2	**0**	**1**	**1**	0.1			
	Flying helmet	**1 110**	6	**25**	**16**	**41**	0.1			
	Flying jacket	**146**	4	**0**	**3**	**3**	0.1			
	Flying shoes	**40**	2	**0**	**2**	**2**	0.1			
	Sunglass (aircrew)	**38**	3	**0**	**1**	**1**	0.1			
Aircraft[f]	All aircraft	Letter of assist								
Aircraft/Airfield support equipment	Aircraft loading vehicle	**148 165**	15	**1 461**	**835**	**2 297**	0.1	26	**1 195**	**1 443**
	Auxiliary power unit (large capacity)	**259 306**	17	**383**	**1 293**	**1 675**	0.1	20	**873**	**970**
	Auxiliary power unit (small capacity)	**91 034**	10	**281**	**766**	**1 047**	0.1	20	**873**	**970**
	Firefighting, crash and rescue light	**233 566**	15	**653**	**1 317**	**1 970**	0.1	123	**1 630**	**1 825**
	Forklift, aircraft unloading	**67 432**	12	**173**	**474**	**647**	0.1	41	**811**	**1 029**

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	Runway sweeper	**285 319**	17	1 043	1 422	**2 466**	0.1	52	**1 195**	**1 443**
	Semi-trailer, aircraft refuelling	**60 962**	15	376	344	**720**	0.1	1	**1 294**	**1 537**
	Snowblower	**223 071**	15	636	1 258	**1 894**	0.1	88	**1 630**	**1 825**
	Snowplow	**108 828**	17	290	543	**833**	0.1	79	**1 630**	**1 825**
	Tractor, aircraft towing	**105 185**	15	391	593	**984**	0.1	75	**1 195**	**1 443**
	Trailer, aircraft loading	**9 802**	15	345	55	**401**	0.1	1	**540**	**630**
	Truck, aircraft refuelling	**120 274**	15	456	678	**1 135**	0.1	50	**1 427**	**1 792**
	Truck, aircraft stairs	**58 898**	15	146	332	**478**	0.1	40	**891**	**1 012**
	Truck, de-icing	**222 769**	15	624	1 256	**1 881**	0.1	37	**1 195**	**1 443**
	Truck, food servicing	**106 671**	15	303	602	**904**	0.1	37	**1 195**	**1 443**
Airfield support equipment	All radars	Special case								
	Approach systems/lighting	Special case								
	Control tower	**4 489 739**	20	12 981	19 456	**32 436**	0.2			
	Navigation systems	**1 990 208**	10	5 859	16 917	**22 775**	0.2			
Armaments	Anti-air missile launchers	Special case								
	Anti-air weapons launchers	Special case								
	Anti-armour grenade launcher (81 100 mm)	**9 083**	24	8	35	**43**	0.5			
	Anti-armour missile launchers	Special case								
	Anti-tank grenade launcher (40 mm) (set of 2)[b]	**1 524**	25	60	6	**66**	0.5			
	Anti-tank grenade launcher (40 mm) (set of 3)[b]	**2 286**	25	90	9	**99**	0.5			
	Anti-tank grenade launcher (60-80 mm)	**1 618**	25	10	6	**16**	0.5			
	Crew-served machine guns (up to 10 mm)	**9 530**	25	7	36	**43**	0.5			
	Crew-served machine guns (11-15 mm)	**15 823**	25	9	59	**69**	0.5			
	Howitzer light towed	Special case								
	Howitzer medium towed	Special case								
	Mortars (up to 60 mm)	**2 376**	25	4	9	**13**	0.5			
	Mortars (61-82 mm)	**12 717**	25	9	48	**57**	0.5			
	Mortars (83-122 mm)	**21 515**	25	13	81	**94**	0.5			
	Recoilless gun	**16 977**	25	20	64	**84**	0.5			
	Sniper rifle (SWS kit) (up to 10mm)[b,h]	**3 000**	25	15	11	**26**	0.5			

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incident factor (percentage)	Monthly non-United Nations POL	Painting rate	Repainting rate
	Sniper rifle (SWS kit) (anti-materiel rifle) (up to 15mm)[b,h]	5 063	25	25	19	44	0.5			
Combat vehicles[g]	APC tracked air defence	Special case							1 825	2 253
	APC tracked air liaison outpost/forward air control/artillery	Special case								
	APC tracked ambulance rescue	712 471	25	3 063	2 672	5 735	0.5	375	1 825	2 253
	APC tracked cargo	571 108	25	4 190	2 142	6 332	0.5	525	1 825	2 253
	APC tracked command post	1 015 537	25	2 713	3 639	6 352	0.3	150	1 825	2 253
	APC tracked infantry carrier — armed (class III)	383 257	20	2 345	1 757	4 102	0.5	525	1 825	2 253
	APC tracked infantry carrier — armed (class II)	624 056	25	4 242	2 340	6 582	0.5	525	1 825	2 253
	APC tracked infantry carrier — armed (class I)	828 148	25	5 006	3 106	8 112	0.5	525	1 825	2 253
	APC tracked infantry carrier — unarmed/ dozer (class II)	312 713	25	2 099	1 173	3 271	0.5	525	1 825	2 253
	APC tracked infantry carrier — unarmed/ dozer (class I)	597 158	25	3 737	2 239	5 976	0.5	525	1 825	2 253
	APC tracked missile equipped	1 162 832	15	6 283	6 945	13 227	0.5	300	1 825	2 253
	APC tracked mortar	623 173	25	2 449	2 337	4 786	0.5	300	1 825	2 253
	APC tracked radar	Special case							1 825	2 253
	APC tracked recovery	872 543	24	3 077	3 393	6 471	0.5	375	1 825	2 253
	APC wheeled air defence	Special case							1 825	2 253
	APC wheeled air liaison outpost/forward air control/artillery	Special case								
	APC wheeled ambulance rescue	583 246	24	2 684	2 511	5 196	1.0	338	1 825	2 253
	APC wheeled command post	786 609	24	1 291	2 928	4 219	0.3	75	1 825	2 253
	APC wheeled infantry carrier — armed (class III)	372 009	20	2 133	1 850	3 993	1.0	450	1 825	2 253
	APC wheeled infantry carrier — armed (class II)	652 267	25	3 690	2 718	6 408	1.0	450	1 825	2 253
	APC wheeled infantry carrier — armed (class I)	784 299	25	4 413	3 268	7 681	1.0	450	1 825	2 253
	APC wheeled infantry carrier — unarmed (class II)	314 374	24	1 709	1 354	3 062	1.0	450	1 825	2 253
	APC wheeled infantry carrier — unarmed (class I)	578 416	25	3 212	2 410	5 622	1.0	450	1 825	2 253

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	APC wheeled missile equipped	**1 076 381**	15	4 287	6 877	**11 164**	1.0	225	**1 825**	**2 253**
	APC wheeled mortar	**593 085**	24	1 964	2 554	**4 518**	1.0	225	**1 825**	**2 253**
	APC wheeled radar	Special case								
	APC wheeled recovery	**663 190**	24	3 719	2 855	**6 574**	1.0	450	**1 825**	**2 253**
	Armoured infantry fighting/airborne/special vehicle	Special case								
	Artillery light howitzer self-propelled	**980 585**	30	1 548	2 806	**4 354**	0.1	45		
	Artillery medium howitzer self-propelled	**1 074 888**	30	1 718	3 075	**4 793**	0.1	45		
	Artillery heavy howitzer self-propelled	Special case								
	Carrier oversnow — infantry carrier	**176 100**	15	3 099	1 052	**4 151**	0.5	105	**1 825**	**2 253**
	Carrier oversnow — infantry carrier armoured	**284 031**	20	4 522	1 302	**5 824**	0.5	263	**1 825**	**2 253**
	Carrier oversnow — general purpose (snowcat)	**41 993**	15	1 468	244	**1 712**	0.3	146	**1 825**	**2 253**
	Carrier oversnow — missile equipped	**737 214**	12	4 787	5 304	**10 091**	0.3	60	**1 825**	**2 253**
	Carrier oversnow — command post	**242 996**	15	1 325	1 411	**2 736**	0.3	30	**1 825**	**2 253**
	Main battle tank, medium (up to 50 tons)	**1 575 686**	25	4 634	5 909	**10 543**	0.5			
	Main battle tank, heavy (more than 50 tons)	**1 758 644**	25	5 924	6 595	**12 518**	0.5			
	Reconnaissance vehicle — tracked	**293 043**	22	4 071	1 232	**5 303**	0.5	438	**1 296**	**1 356**
	Reconnaissance vehicle — wheeled (up to 25 mm)	**288 164**	25	4 155	1 201	**5 355**	1.0	600	**1296**	**1 356**
	Reconnaissance vehicle — wheeled (more than 25 mm)	**401 968**	25	4 246	1 675	**5 921**	1.0	600	**1 296**	**1 356**
	Reconnaissance vehicle — wheeled (more than 50 mm)	**718 628**	25	4 854	2 994	**7 848**	1.0	600	**1 296**	**1 356**
	Reconnaissance vehicle — wheeled (more than 100 mm)	Special case								
	Tank, recovery vehicle	**1 489 871**	25	4 217	5 587	**9 804**	0.5			
	All other tanks	Special case								
Communications vehicles	Air liaison outpost/forward air control/tactical air control post, wheeled	Special case								
	Mobile tactical communications post[b]	**48 000**	12	546	353	**899**	0.5	150	**891**	**1 012**
	Mobile trunking system	Special case								
	Trailer, communications suite	Special case							**1 195**	**1 443**

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	Truck, communications light	**50 248**	12	558	370	**928**	0.5	30	**1 195**	**1 443**
	Truck, communications medium	Special case							**1 195**	**1 443**
	Truck, communications heavy	Special case							**1 195**	**1 443**
Containers	Ammunition magazine (storage)	**23 644**	9	40	223	**263**	0.2		**859**	**1 366**
	Communications and command posts	**155 788**	12	192	1 147	**1 339**	0.5		**859**	**1 366**
	Dental	Special case								
	Insulated storage	**49 992**	12	47	356	**403**	0.2		**859**	**1 366**
	Medical	Special case								
	Refrigeration/freezer/food storage	**36 046**	6	52	507	**559**	0.2		**859**	**1 366**
	Workshop	**62 903**	9	148	593	**741**	0.2		**859**	**1 366**
	Other containers	**7 676**	10	7	65	**72**	0.2		**659**	**1 005**
Demining and EOD equipment[c]	Man portable high-power ECM (cell/GPS/jammer)[b]	**38 100**	7	6	457	**463**	0.1			
	Mine detector (capable of measuring shape or explosive content, as well as metal content)	**10 640**	5	104	178	**283**	0.1			
	Mobile ECM (jammer) against remote activated IEDs[b]	**120 362**	7	1 361	1 443	**2 804**	0.1			
	Remote control mine clearance tracked vehicle[b]	**589 860**	20	424	2 507	**2 931**	0.1	250	**891**	**1 012**
Demining EOD/ IEDD equipment[c]	Armoured cabin EOD/IEDD team truck vehicle[b]	**785 070**	15	3 767	4 427	**8 194**	0.1	450	**891**	**1 012**
	Mine-resistant ambush protected vehicle[b]	**300 000**	15	3 500	1 692	**5 192**	0.1	350	**891**	**1 012**
	Remote control bomb disposal equipment	Special case								
	Remote operated vehicle with observation and/or disruption capacity[b]	**91 496**	10	1 000	770	**1 770**	0.1	150	**891**	**1 012**
	Portable X-ray system for EOD[b]	**5 600**	5	200	94	**294**	0.1			
	Bomb locator	**7 561**	5	75	127	**201**	0.1			
	EOD suit — light (minimum V50 rating of 1,000 for the chest and groin)	**6 956**	5	67	117	**183**	0.1			
	EOD suit — heavy (minimum V50 rating of 1,600 for the chest and groin)	**10 817**	5	108	181	**289**	0.1			
	Metal detectors	**3 243**	5	32	54	**87**	0.1			

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	Demining EOD/IEDD personal protection Set	**2 244**	2	37	75	**112**	0.1			
	Demining protective apron/trousers	**686**	3	6	19	**25**	0.1			
	Demining protective helmet and visor	**214**	2	17	9	**26**	0.1			
	Demining protective shoes	**510**	2	6	21	**27**	0.1			
	Demining protective vest/jacket	**685**	3	6	19	**25**	0.1			
	Reinforced gloves (pair)	**148**	2	2	6	**8**	0.1			
	Demining EOD/IEDD set[b]	**20 855**	2	251	871	**1 122**	0.1			
	EOD disrupter	**3 850**	2	6	161	**167**	0.1			
	EOD operator toolkit	**3 805**	2	10	159	**169**	0.1			
	Explosive storage/detonator box	**1 056**	2	6	44	**50**	0.1			
	Firing cables (300 m)	**740**	2	6	31	**37**	0.1			
	Firing system to initiate disruptors/charges	**3 500**	2	6	146	**152**	0.1			
	Hook and line toolkit for EOD	**72**	2	7	3	**10**	0.1			
	IED/post-blast investigation kit	**4 987**	2	200	208	**408**	0.1			
	Vehicle borne improvised explosive device) telescopic search mirror with light (9 feet)	**119**	2	2	5	**7**	0.1			
	Vehicle and building access kit	**2 726**	2	8	114	**122**	0.1			
Electrical	Generator stationary and mobile 20-30 kVA	**42 338**	12	142	312	**454**	0.5	309	**221**	**324**
	Generator stationary and mobile 31-40 kVA	**44 840**	12	184	330	**514**	0.5	432	**221**	**324**
	Generator stationary and mobile 41-50 kVA	**59 156**	12	186	435	**621**	0.5	555	**221**	**324**
	Generator stationary and mobile 51-75 kVA	**71 837**	12	199	529	**728**	0.5	771	**221**	**324**
	Generator stationary and mobile 76-100 kVA	**76 447**	12	220	563	**783**	0.5	1 080	**334**	**352**
	Generator stationary and mobile 101-150 kVA	**87 486**	12	292	622	**914**	0.2	1 543	**334**	**352**
	Generator stationary and mobile 151-200 kVA	**114 705**	15	441	656	**1 098**	0.2	2 160	**334**	**352**
	Generator stationary and mobile 201-500 kVA	**164 773**	14	551	1 008	**1 560**	0.2	3 086	**362**	**407**
	Generator stationary and mobile greater than 500 kVA	Special case							**362**	**407**
	PRP standard and role generator 20-30 kVA[b]	**18 200**	6	475	256	**731**	0.2	309	**221**	**324**
	PRP standard and role generator 31-40 kVA[b]	**20 600**	6	483	290	**773**	0.2	432	**221**	**324**
	PRP standard and role generator 41-50 kVA[b]	**26 300**	6	553	370	**923**	0.2	555	**221**	**324**
	PRP standard and role generator 51-75 kVA[b]	**27 600**	6	575	388	**963**	0.2	771	**221**	**324**

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	PRP standard and role generator 76-100 kVA[b]	**32 300**	6	725	454	**1 179**	0.2	1 080	**334**	**352**
	PRP standard and role generator 101-150 kVA[b]	**39 400**	6	1 033	554	**1 587**	0.2	1 543	**334**	**352**
	PRP standard and role generator 151-200 kVA[b]	**47 600**	6	1 308	669	**1 977**	0.2	2 160	**334**	**352**
	PRP standard and role generator 201-330 kVA[b]	**53 600**	6	1 633	753	**2 386**	0.2	2 800	**362**	**407**
	PRP standard and role generator 331-500 kVA[b]	**64 550**	6	1 808	907	**2 715**	0.2	3 086	**362**	**407**
	PRP standard and role generator greater than 500 kVA[b]	Special case							**362**	**407**
	Limited-time running power role generator[b]		12	Wet lease reimbursement at 50 per cent of equivalent PRP rate						
	Emergency standby power role generator[b]		12	Wet lease reimbursement at 30 per cent of equivalent PRP rate						
	Generator — excess requirement (only for the period 2017-2020)[b]			Wet lease reimbursement at 10 per cent of equivalent PRP rate						
	RE[b] Integrated diesel PV low penetration hybrid systems Allowable power penetration range (PV peak power kW to generator 100 per cent load rating kW) of 25-35 per cent									
	RE hybrid systems 20-30 kVA			Wet lease reimbursement at 120 per cent of equivalent PRP rate						
	RE hybrid systems 31-40 kVA			Wet lease reimbursement at 125 per cent of equivalent PRP rate						
	RE hybrid systems 41-50 kVA			Wet lease reimbursement at 130 per cent of equivalent PRP rate						
	RE hybrid systems 51-75 kVA			Wet lease reimbursement at 135 per cent of equivalent PRP rate						
	RE hybrid systems 76-100 kVA			Wet lease reimbursement at 140 per cent of equivalent PRP rate						
	RE hybrid systems 101-150 kVA			Wet lease reimbursement at 145 per cent of equivalent PRP rate						
	RE hybrid systems 151-200 kVA			Wet lease reimbursement at 150 per cent of equivalent PRP rate						
	RE hybrid systems 201-330 kVA			Wet lease reimbursement at 160 per cent of equivalent PRP rate						

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incident factor (percentage)	Monthly non-United Nations POL	Painting rate	Repainting rate
	RE hybrid systems 331-500 kVA			Wet lease reimbursement at 180 per cent of equivalent PRP rate						
	RE hybrid systems greater than 500 kVA	Special case								
	Integrated diesel PV medium and high penetration hybrid systems. Power penetration (PV peak power kW to generator 100 per cent load rating kW) greater than 35 per cent[a]	Special case								
	Autonomous PV and battery systems, with or without backup or peak demand generators[b]	Special case								
	Solar PV area and street lighting units, equipped with LEDs, batteries and sensors-timers[b]	Special case								
	Other renewable energy systems[b]	Special case								
Engineering equipment	Assault boat and motor (Zodiac type)	16 311	8	151	177	328	0.5	240	567	735
	Bridging boat	177 953	25	1 170	667	1 837	0.5	775		
	Bridging sets (Bailey or equivalent, set of 100 feet)	476 724	39	5 641	1 058	6 700	0.1			
	Compactor plate	530	5	4	9	13	0.5			
	Concrete cutter	5 194	15	77	31	108	0.5			
	Concrete mixer machine, above 1.5 m^3	7 847	10	105	69	174	0.5			
	Concrete mixer machine, below 1.5 m^3	1 862	8	33	20	53	0.1			
	Concrete vibrator	1 465	12	25	11	36	0.5			
	Dewatering pumps, up to 5 horsepower	1 828	10	13	16	29	0.5			
	Ferry boats (river crossing)	636 876	20	1 129	2 919	4 048	0.5	900		
	Pontoons/pontoon bridge (interior/ramp section)	440 180	10	658	3 852	4 510	0.5			
	Quarry equipment, complete	Special case								
	Recce (reconnaissance) boats	31 757	10	273	278	551	0.5	258	567	735
	Scissor/cantilever-type bridge (up to 20 m)	100 259	10	583	877	1 461	0.5			
	Sewage treatment plant and equipment	39 313	15	46	235	281	0.5			
	Soil laboratory equipment[b]	37 958	10	287	332	619	0.5			
	Survey equipment, including total station	12 353	15	91	74	165	0.5			
	Survey equipment, Theodolite type	6 735	15	10	40	50	0.5			
	Water pumps	5 059	9	13	49	62	0.5			

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incidence factor (percentage)	Monthly non-United Nations POL	Painting rate	Repainting rate
	Water treatment plant (ROWPU or equivalent), equipment, tanks and bladders, up to 2,000 l per hour, storage up to 5,000 l	**55 743**	10	380	488	**868**	0.5			
	Water treatment plant (ROWPU or equivalent), equipment, tanks and bladders, over 2,000 l per hour, storage up to 20,000 l	**88 950**	10	1 397	778	**2 176**	0.5			
	Water treatment plant (ROWPU or equivalent), equipment, tanks and bladders, over 7,000 l per hour, storage up to 42,000 l	**386 621**	10	2 814	3 383	**6 197**	0.5			
	Well drilling rig	**415 109**	20	1 719	1 903	**3 621.6**	0.5	200		
Engineering vehicles	APC engineer — tracked	**699 690**	25	2 488	2 915	**5 404**	1.0	300	**1 825**	**2 253**
	Bulldozer, light (D4 and 5)	**54 039**	12	1 038	380	**1 417**	0.1	348	**1 630**	**1 825**
	Bulldozer, medium (D6 and 7)	**154 248**	15	1 637	870	**2 507**	0.1	540	**1 630**	**1 825**
	Bulldozer, heavy (D8A)	**301 519**	19	2 103	1 348	**3 450**	0.1	570	**1 630**	**1 825**
	Compressor equipment truck[b]	**139 436**	5	522	2 336	**2 858**	0.1	350	**1427**	**1792**
	Crane, mobile light (up to 10 tons)	**130 458**	15	521	736	**1 257**	0.1	142	**1 427**	**1 792**
	Crane, mobile medium (11-24 tons)	**250 586**	15	625	1 413	**2 038**	0.1	269	**1 427**	**1 792**
	Crane, mobile heavy (25-30 tons)	**323 936**	17	911	1 615	**2 526**	0.1	350	**1 427**	**1 792**
	Crane, mobile heavy (more than 30 tons)	Special case							**1 427**	**1 792**
	Crusher plant[b]	**148 750**	10	650	1 252	**1 902**	0.1	500	**1825**	**2253**
	Drill rig, self-propelled	**223 528**	20	699	950	**1 649**	0.1	450	**1 427**	**1 792**
	Excavator (up to 1 m^3)	**105 687**	15	1 184	596	**1 780**	0.1	309	**1 514**	**1 716**
	Excavator (more than 1 m^3)	**290 330**	17	1 573	1 447	**3 020**	0.1	492	**1 514**	**1 716**
	Firefighting truck	**168 796**	20	161	717	**878**	0.1	22	**1 630**	**1 825**
	Front-end loader, light (up to 1 m^3)	**59 928**	12	1 141	421	**1 563**	0.1	257	**1 514**	**1 716**
	Front-end loader, medium (1-2m^3)	**95 757**	12	1 488	673	**2 160**	0.1	257	**1 514**	**1 716**
	Front-end loader, heavy (2-4 m^3)	**180 121**	15	1 762	1 016	**2 777**	0.1	450	**1 514**	**1 716**
	Front-end loader, special (more than 4m^3)	Special case								
	Front-end loader, tracked	**171 146**	12	1 450	1 203	**2 653**	0.1	582	**1 514**	**1 716**
	Grader, general purpose	**144 336**	19	1 687	645	**2 332**	0.1	504	**1 514**	**1 716**
	Grader, special purpose	Special case								
	Industrial tractor light	**46 011**	12	942	323	**1 265**	0.1	282	**1 514**	**1 716**

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	M2 rig, pontoon bridge	Special case								
	Mine-clearance system — vehicle mounted	Special case								
	Road sweeper	**99 090**	15	630	559	**1 188**	0.1	72	**1 514**	**1 716**
	Roller, self-propelled	**106 453**	17	791	531	**1 322**	0.1	211	**1 514**	**1 716**
	Roller, towed	**38 207**	15	622	215	**838**	0.1	57	**811**	**1 029**
	Sawmill, mobile	Special case								
	Snowblower, truck	**201 794**	12	610	1 418	**2 028**	0.1	75	**1 630**	**1 825**
	Truck, drill rig	**64 840**	15	79	366	**445**	0.1	24	**1 427**	**1 792**
	Truck, dump, up to 10 m^3 (civilian pattern)	**61 822**	12	695	471	**1 165**	0.8	140	**1 630**	**1 825**
	Truck, dump, up to 10 m^3 (military pattern)	**155 549**	15	629	968	**1 597**	0.8	140	**1 630**	**1 825**
	Truck, dump, large (more than 10m^3)	**245 156**	18	1 852	1 155	**3 008**	0.1	525	**1 630**	**1 825**
	Truck, folding pontoon bridge	**169 484**	18	57	799	**856**	0.1	20	**1 427**	**1 792**
	Truck, launched bridge (scissor type)	**99 467**	18	53	469	**522**	0.1	20	**1 427**	**1 792**
	Truck, pile driver	**49 465**	15	72	279	**351**	0.1	24	**1 427**	**1 792**
	Truck, sewer cleaning	**132 534**	15	93	747	**840**	0.1	110	**1 195**	**1 443**
	Workshops, truck, heavy engineering equipment	**124 910**	19	402	558	**961**	0.1	52	**1 427**	**1 792**
Force protection surveillance equipment	Analog/digital surveillance of United Nations camps, full set[b]	**148 200**		850	1 436	**2 286**	0.1			
	Automated thermal image processing and monitoring system (with recording capacity)	**90 575**	10	500	762	**1 262**	0.1			
	Day and night cameras (set of 5)	**22 625**	5	135	379	**514**	0.1			
	Inside base surveillance dome camera (360° + thermal view)	**15 000**	10	115	126	**241**	0.1			
	Microwave circuit	**20 000**	10	100	168	**268**	0.1			
	Ground surveillance radar for quick-reaction forces[b]	**456 000**	5	90	7 676	**7 766**	0.2			
HF equipment	Antennas, log periodic — directional high power	**25 076**	24	7	91	**98**	0.2			
	Base receiver, HF high power	**8 103**	7	23	98	**121**	0.2			
	Base station transmitter, HF high power	**21 969**	7	39	265	**304**	0.2			
	Phone patch interlink	Special case								

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incident factor (percentage)	Monthly non-United Nations POL	Painting rate	Repainting rate
Logistics equipment	Fuel farm (2 pumps, tanks and/or bladders, pipelines, filters) 76,000 l	35 695	10	78	312	390	0.5	36		
	Fuel farm (2 pumps, tanks and/or bladders, pipelines, filters) 152,000 l	53 240	10	88	466	554	0.5	36		
	Fuel storage, less than 500 l	2 305	12	11	17	28	0.5			
	Fuel storage, 501-5,000 l	3 033	12	15	22	37	0.5			
	Fuel storage, 5,001-10,000 l	3 645	12	17	27	44	0.5			
	Fuel storage, more than 10,000 l	5 310	12	19	39	58	0.5			
	Water storage, 5,000-7,000 l	1 162	7	11	14	25	0.1			
	Water storage, 7,001-10,000 l	1 632	7	16	20	36	0.1			
	Water storage, 10,001-12,000 l	1 789	7	18	21	40	0.1			
	Water storage, 12,001-20,000 l	5 151	7	51	62	113	0.1			
	Water storage, more than 20,000 l	5 839	7	57	70	127	0.1			
Material handling equipment	Container, lifter, self-propelled	122 464	12	455	861	1 316	0.1	3	811	1 029
	Forklift, container	362 717	12	384	2 549	2 933	0.1	68	1 514	1 716
	Forklift, light (up to 1.5 tons)	30 974	10	418	261	678	0.1	90	811	1 029
	Forklift, medium (up to 5 tons)	58 695	12	709	412	1 121	0.1	96	811	1 029
	Forklift, heavy (more than 5 tons)	106 692	12	940	750	1 690	0.1	108	811	1 029
	Forklift, rough terrain (up to 1.5 tons)	87 862	10	445	740	1 185	0.1	78	811	1 029
	Forklift, rough terrain (up to 5 tons)	128 973	12	655	906	1 561	0.1	91	811	1 029
	Forklift, rough terrain (more than 5 tons)	182 458	12	772	1 282	2 054	0.1	360	811	1 029
Medical and dental equipment[a,c]	Level 1 hospital	89 341	5	447	1 496	1 943	0.1			
	Level 2 hospital	909 908	5	4 550	15 241	19 791	0.1			
	Level 3 hospital	1 537 302	5	7 687	25 750	33 436	0.1			
	Aero-medical evacuation module	96 041	5	480	1 609	2 089	0.1			
	Dental equipment set	161 564	5	808	2 706	3 514	0.1			
	Forward surgery module	162 342	5	812	2 719	3 531	0.1			
	Gynaecology module	10 932	5	55	183	238	0.1			
	Laboratory only	31 016	5	155	520	675	0.1			
	Orthopaedic module	48 348	5	242	810	1 052	0.1			
	Physiotherapy module[b]	13 300	5	67	223	289	0.1			

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	CT scanner	Special case								
Miscellaneous communications equipment	Antenna towers	**5 299**	20	11	23	**34**	0.2			
	Cell phones (set of 5)[b]	**1 200**	5	10	20	**30**	0.2			
	RF inhibitors/cell phone jammer (portable/man pack) (set of 3)[b]	**1 500**	7	10	18	**28**	0.2			
	RF inhibitors/cell phone jammer (vehicle-mounted)[b]	**1 000**	7	18	12	**30**	0.2			
	RF tracker/bug locator (set of 4)[b]	**1 200**	7	5	14	**19**	0.2			
	Tactical satellite terminal[b]	**90 000**	7	100	1 086	**1 186**	0.2			
	Underwater communications systems	Special case								
	UPS 10 kVA and up	**8 786**	10	89	75	**163**	0.2			
	Videoconferencing system[b]	**5 500**	7	15	66	**81**	0.2			
Miscellaneous equipment	Canine unit, all types	Special case								
Military police kit	Investigation laboratory kit[b]	**9 079**	10	395	79	**474**	0.5			
	Mobile crash barriers[b]	**8 000**	10	40	70	**110**	0.5			
	Outdoor inspection mirrors (set of 3)[b]	**1 050**	5	5	18	**23**	0.5			
	Road spike belt[b]	**1 095**	5	5	19	**24**	0.5			
	Traffic cones (set of 30)[b]	**1 500**	5	7	26	**33**	0.5			
	Under carriage inspection mirrors (set of 10)[b]	**1 200**	5	1	21	**22**	0.5			
Military police/police traffic kit	Military police/police traffic kit — set	**2 298**	5	22	39	**61**	0.5			
	Alcohol detector	**758**	5	5	13	**18**	0.5			
	Laser speed gun	**1 540**	5	17	26	**43**	0.5			
Naval vessels[f]	All naval vessels	Letter of assist								
Observation equipment (area)	Artillery locating equipment	Special case								
	Ground surveillance radar/system	Special case								
	Thermal imaging systems — aerial version	**134 530**	8	493	1 424	**1 917**	0.2			
	Thermal imaging systems — ground version	**111 145**	8	493	1 176	**1 669**	0.2			
Observation equipment (Personal)	Binoculars — tripod mounted	**8 994**	10	11	79	**90**	0.5			
	Enhanced electronic GPS tracking system (set of 5)[b]	**1 000**	10	10	9	**19**	0.2			

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	Night observation devices — tripod mounted	**13 844**	**8**	22	150	**172**	0.5			
Police vehicles	Police armoured protected vehicle	**299 098**	24	1 628	1 288	**2 916**	1.0	450	**1 825**	**2 253**
	Police crowd control vehicle	**155 936**	20	320	754	**1 073**	0.8	80	**894**	**961**
	Truck water cannon, armoured	Special case								
	Truck water cannon, soft skin, from 2,500 l and up to 5,000 l	**121 433**	20	1 152	516	**1 668**	0.1	336	**1 195**	**1 443**
	Truck water cannon, soft skin, more than 5,000 l and up to 10,000 l	**171 629**	20	1 168	729	**1 897**	0.1	336	**1 195**	**1 443**
	Truck water cannon, soft skin, more than 10,000 l	**191 740**	20	1 211	815	**2 026**	0.1	336	**1 195**	**1 443**
Riot control equipment — Personnel equipment[f]	Full kit set (with gas mask) (set of 10)	**24 962**	2	130	1 050	**1 181**	0.5			
	Full kit set (without gas mask) (set of 10)	**15 415**	2	80	649	**729**	0.5			
	Elbow, knee and shoulder protection (set of 10)	**4 687**	2	24	197	**221**	0.5			
	Helmet with visor (set of 10)	**3 076**	2	16	129	**146**	0.5			
	Shield (plastic, transparent) (set of 10)	**4 673**	2	25	197	**221**	0.5			
	Baton (set of 10)	**2 979**	2	15	125	**141**	0.5			
	Gas mask (set of 10)	**9 547**	2	50	402	**452**	0.5			
Riot control equipment — Platoon equipment	Riot control platoon equipment set	**7 715**	5/10	42	82	**124**	0.5			
	Teargas launcher (set of 4)	**4 999**	10	24	44	**68**	0.5			
	Loudspeakers (set of 3)	**383**	10	8	3	**11**	0.5			
	Signal pistol (set of 3)	**579**	10	1	5	**6**	0.5			
	Handheld searchlights (set of 6)	**529**	5	3	9	**12**	0.5			
	Handheld metal detectors (set of 6)	**584**	5	3	10	**13**	0.5			
	Taser (advanced pistol) (set of 1)	**640**	5	3	11	**14**	0.5			
	Stun baton (electric) (set of 5)[b]	**2 000**	5	10	34	**44**	0.5			
Riot control equipment — Other riot control equipment	Automatic (TG) grenade launcher (set of 3)	**6 435**	10	31	56	**88**	0.5			
	Ballistic shield 0108/IV-NIJ (static)[b]	**1 100**	15	5	7	**12**	0.5			
	Ballistic shield IIIA-NIJ (portable; full-body protection)[b]	**3 200**	10	16	28	**44**	0.5			
	Ballistic shield IIIA-NIJ (portable; upper-body protection)[b]	**2 500**	10	12	22	**34**	0.5			
	Breaching tools set (for one unit)[b]	**2 500**	5	12	43	**55**	0.5			

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incident factor (percentage)	Monthly non-United Nations POL	Painting rate	Repainting rate
	Bullet-proof shield portable (set of 3)[b]	**1 305**	**8**	**7**	**14**	**21**	**0.5**			
	Personal mounted cameras (set of 2)[b]	**1 400**	**7**	**5**	**17**	**22**	**0.5**			
	Public address system (set)	**1 248**	**10**	**24**	**11**	**35**	**0.5**			
	Rappelling gear set (for one unit)[b]	**1 942**	**5**	**10**	**33**	**43**	**0.5**			
	Searchlights and generators (set)	**3 652**	**10**	**18**	**32**	**50**	**0.5**			
	Vehicle mounted cameras (set of 2)[b]	**3 999**	**7**	**15**	**49**	**64**	**0.5**			
Satellite equipment	Earth station — non-redundant	Special case								
	Earth station — redundant	Special case								
	Earth station hub	Special case								
	Earth station sub-hub	Special case								
	Inmarsat type A — portable earth station	**44 206**	**7**	**34**	**545**	**579**	**0.5**			
	Inmarsat type C — portable earth station	**13 994**	**7**	**25**	**172**	**197**	**0.5**			
	Inmarsat type M — portable earth station	**20 127**	**7**	**31**	**248**	**279**	**0.5**			
	Satellite phone[b]	**1 295**	**7**	**15**	**16**	**31**	**0.2**			
	Satellite receivers/television receive only terminal	**163 548**	**9**	**151**	**1 542**	**1 693**	**0.2**			
	UPS satellite station	**531**	**9**	**5**	**5**	**10**	**0.2**			
	global TX/RX VSAT Earth station	**210 181**	**9**	**212**	**1 981**	**2 193**	**0.2**			
Specialized police team equipment	Forensic kit[b]	Special case								
	Forensic laboratory[b]	Special case								
	High thermal image system (stationary)[b]	Special case								
	High thermal image system (mobile)[b]	Special case								
Support vehicles (commercial pattern)	All-terrain vehicle	**6 903**	**5**	**5**	**120**	**125**	**0.8**	**1**	**227**	**305**
	Ambulance — armoured/rescue	**161 233**	**10**	**224**	**1 451**	**1 676**	**0.8**	**96**	**873**	**970**
	Ambulance — truck	**61 434**	**9**	**332**	**610**	**942**	**0.8**	**80**	**891**	**1 012**
	Ambulance (4x4)	**77 687**	**8**	**573**	**861**	**1 434**	**0.8**	**80**	**873**	**970**
	Automobile (4x4)	**15 985**	**8**	**389**	**177**	**567**	**0.8**	**300**	**873**	**970**
	Automobile, sedan/station wagon	**10 996**	**5**	**120**	**191**	**310**	**0.8**	**120**	**873**	**970**
	Buses (12 or fewer passengers)	**28 756**	**6**	**505**	**419**	**923**	**0.8**	**300**	**894**	**961**
	Buses (13-24 passengers)	**40 112**	**8**	**745**	**445**	**1 189**	**0.8**	**240**	**1 185**	**1 314**

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incident factor (percentage)	Monthly non-United Nations POL	Painting rate	Repainting rate
	Buses (more than 24 passengers)	137 317	12	857	1 045	1 902	0.8	200	2 033	2 262
	Motorcycles	3 496	4	19	75	94	0.8	6	227	305
	Snowmobile	6 701	6	5	98	103	0.8	1	227	305
	Truck, crane (up to 10 tons)	144 990	20	174	701	875	0.8	100	1 427	1 792
	Truck, crane heavy lift (more than 10 tons and up to 25 tons)	205 089	20	267	991	1 259	0.8	100	1 427	1 792
	Truck, maintenance light	49 575	5	146	859	1 005	0.8	240	1 195	1 443
	Truck, maintenance medium	85 524	8	254	948	1 202	0.8	150	1 195	1 443
	Truck, maintenance heavy	246 290	12	271	1 875	2 146	0.8	140	1 195	1 443
	Truck, pallet loading	61 307	12	1 048	467	1 515	0.8	480	1 195	1 443
	Truck, recovery (up to 5 tons)	144 343	10	589	1 299	1 888	0.8	270	1 195	1 443
	Truck, refrigerator (less than 20 feet)	58 323	10	62	525	587	0.8	34	1 195	1 443
	Truck, refrigerator (20 or more feet)	63 289	10	64	570	633	0.8	34	1 195	1 443
	Truck, tanker (up to 5,000 l)	103 157	13	1 636	730	2 366	0.8	1,440	1 195	1 443
	Truck, tanker (more than 5,000 and up to 10,000 l)	103 396	13	1 651	732	2 383	0.8	1,440	1 427	1 792
	Truck, tanker (more than 10,000 l)	170 376	16	1 886	1 001	2 887	0.8	1,520	1 427	1 792
	Truck, tractor (up to 50 tons)	101 744	12	1 028	774	1 803	0.8	540	1 195	1 443
	Truck, tractor heavy (more than 50 tons cap)	180 965	15	695	1 126	1 821	0.8	1,950	1 195	1 443
	Truck, utility/cargo (less than 1.5 tons) armoured/bulletproof[a]	119 000	10	1 250	1 071	2 321	0.8	350	891	1012
	Truck, utility/cargo (less than 1.5 tons)	21 006	5	244	364	608	0.8	240	891	1 012
	Truck, utility/cargo (1.5-2.4 tons)	27 463	7	290	345	635	0.8	300	891	1 012
	Truck, utility/cargo (2.5-5 tons)	45 755	9	335	454	789	0.8	360	1 195	1 443
	Truck, utility/cargo (more than 5 tons and up to 10 tons)	83 213	10	555	749	1 304	0.8	400	1 195	1 443
	Truck, utility/cargo (more than 10 tons)	129 512	12	791	986	1 776	0.8	400	1 427	1 792
	Truck, water (up to 5,000 l)	89 348	12	656	680	1 336	0.8	504	1 195	1 443
	Truck, water (more than 5,000 and up to 10,000 l)	92 591	12	654	705	1 359	0.8	504	1 195	1 443
	Truck, water (more than 10,000 l)	95 762	12	677	729	1 406	0.8	504	1 195	1 443

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
Support vehicles (military pattern)	Ambulance	**94 079**	10	365	847	**1 212**	0.8	140	**873**	**970**
	High-mobility light tactical vehicles[b]	**450 000**	25	1 500	1 800	**3 300**	0.8	300	**891**	**1012**
	Jeep (4x4), armoured/bulletproof[b]	**125 000**	10	1 000	1 125	**2 125**	0.8	250	**891**	**1012**
	Jeep (4x4) with military radio	**41 270**	10	946	371	**1 317**	0.8	300	**873**	**970**
	Motorcycles	**9 082**	8	101	101	**202**	0.8	48	**227**	**305**
	Truck, crane (up to 10 tons)	**146 545**	18	214	776	**990**	0.8	70	**1 427**	**1 792**
	Truck, crane (10-24 tons)	**221 179**	20	345	1 069	**1 414**	0.8	100	**1 427**	**1 792**
	Truck, crane (more than 24 tons)	Special case							**1 427**	**1 792**
	Truck, maintenance light	**90 959**	11	529	750	**1 279**	0.8	360	**1 195**	**1 443**
	Truck, maintenance medium	**117 317**	14	721	777	**1 498**	0.8	200	**1 195**	**1 443**
	Truck, maintenance heavy	**279 340**	17	921	1 556	**2 476**	0.8	151	**1 195**	**1 443**
	Truck, recovery (up to 5 tons)	**148 833**	18	1 541	788	**2 329**	0.8	420	**1 195**	**1 443**
	Truck, recovery (more than 5 tons)	**386 766**	18	1 831	2 048	**3 879**	0.8	300	**1 427**	**1 792**
	Truck, refrigerator (less than 20 feet)	**104 377**	15	152	649	**802**	0.8	70	**1 195**	**1 443**
	Truck, refrigerator (20 or more feet)	**122 251**	15	150	761	**910**	0.8	70	**1 195**	**1 443**
	Truck, tanker (up to 5,000 l)	**122 764**	18	985	650	**1 635**	0.8	320	**1 427**	**1 792**
	Truck, tanker (more than 5,000 and up to 10,000 l)	**210 853**	18	745	1 117	**1 862**	0.8	320	**1 427**	**1 792**
	Truck, tanker (more than 10,000 l)	**220 843**	18	773	1 170	**1 943**	0.8	320	**1 427**	**1 792**
	Truck, tractor (up to 40 tons tow)	**140 886**	16	802	828	**1 630**	0.8	490	**1 427**	**1 792**
	Truck, tractor (41-60 tons tow)	**161 853**	18	1 471	857	**2 328**	0.8	330	**1 427**	**1 792**
	Truck, tractor (more than 60 tons tow)	Special case							**1 427**	**1 792**
	Truck, utility/cargo (less than 1.5 tons)	**32 991**	10	855	297	**1 152**	0.8	300	**891**	**1 012**
	Truck, utility/cargo (1.5-2.4 tons)	**46 898**	10	914	422	**1 336**	0.8	300	**891**	**1 012**
	Truck, utility/cargo (2.5 to 5 tons)	**81 645**	11	937	673	**1 610**	0.8	360	**1 195**	**1 443**
	Truck, utility/cargo (more than 5 tons and up to 10 tons)	**137 167**	14	1 104	908	**2 012**	0.8	480	**1 195**	**1 443**
	Truck, utility/cargo (more than 10 tons)	**180 175**	17	1 230	1 003	**2 233**	0.8	344	**1 427**	**1 792**
	Truck, water (up to 5,000 l)	**176 044**	20	999	851	**1 850**	0.8	336	**1 195**	**1 443**
	Truck, water (more than 5,000 and up to 10,000 l)	**180 058**	20	1 017	870	**1 887**	0.8	336	**1 195**	**1 443**

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incident factor (percentage)	Monthly non-United Nations POL	Painting rate	Repainting rate
	Truck, water (more than 10,000 l)	178 907	20	1 062	865	1 927	0.8	336	1 195	1 443
Telephone equipment	Cryptofax	3 417	7	4	41	45	0.2			
	Cyphering equipment	Special case								
	Telephone exchange large, (1-1,100 lines)	424 676	15	109	2 430	2 539	0.2			
	Telephone exchange (Private Automatic Branch Exchange) (1-100 lines)	68 503	12	49	487	536	0.2			
Trailers	Light cargo single axle	5 481	10	51	49	100	0.8	6	540	630
	Medium cargo single axle	12 162	12	63	93	155	0.8	6	540	630
	Light cargo multiaxle	17 167	12	265	131	395	0.8	6	905	967
	Medium cargo multiaxle	21 481	15	277	134	411	0.8	6	905	967
	Heavy cargo multiaxle	31 773	18	337	168	505	0.8	8	1 294	1 537
	Heavy cargo (20 tons)	64 683	18	345	343	688	0.8	8	1 294	1 537
	Bridging system	Special case								
	Compressor trailer	53 873	12	234	410	644	0.8	8	540	630
	Flatbed (up to 20 tons)	26 802	18	317	142	459	0.8	10	905	1 537
	Flatbed (more than 20 tons)	36 021	20	366	174	540	0.8	5	1 294	1 537
	Fuel trailer (up to 2,000 l)	21 688	12	492	165	657	0.8	12	1 294	1 537
	Fuel trailer (2,000-7,000 l)	38 141	15	449	237	686	0.8	8	1 294	1 537
	Fuel trailer (more than 7,000 l)	67 987	15	438	423	861	0.8	5	1 294	1 537
	Heavy equipment/tank transporter	300 891	30	162	1 036	1 198	0.8	1	1 294	1 537
	Lowbed (20-40 tons)	64 451	20	539	312	850	0.8	5	1 294	1 537
	Lowbed (up to 20 tons)	48 769	18	547	258	805	0.8	10	1 294	1 537
	Mine-clearance system trailer mounted	Special case								
	Pallet loading system	5 386	15	238	34	272	0.8	12	905	967
	Semi-trailer refrigerator (less than 30 feet)	51 771	20	340	250	590	0.8	6	1 294	1 537
	Semi-trailer refrigerator (30 or more feet)	56 769	20	338	274	612	0.8	6	1 294	1 537
	Semi-trailer refuelling	53 832	20	589	260	849	0.8	6	1 294	1 537
	Semi-trailer van	32 520	20	224	157	381	0.8	6	1 294	1 537
	Semi-trailer water	49 002	20	343	237	580	0.8	6	540	630
	Servicing trailer	14 608	12	233	111	344	0.8	12	905	1 537

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	Trackway surfacing outfit	**62 459**	18	37	331	**368**	0.8	1	**905**	**967**
	Trailer, floodlight set with generators (4 lights, 9 m pole, 7 kW generator)	**23 564**	10	176	206	**382**	0.5	15	**540**	**630**
	Water trailer (up to 2,000 l)	**15 373**	12	201	117	**318**	0.8	12	**905**	**967**
	Water trailer (2,000-7,000 l)	**19 937**	15	263	124	**387**	0.8	8	**1 294**	**1 537**
	Water trailer (more than 7,000 l)	**22 404**	15	322	139	**461**	0.8	5	**1 294**	**1 537**
	Welding trailer	**49 411**	10	101	445	**546**	0.8	6	**540**	**630**
Unmanned aerial systems	Unmanned aerial systems (up to 2 kg and 200 feet)[b]	**2 000**	3	45	56	**101**	0.5	25		
	All other unmanned aerial systems[b]	Letter of assist								
VHF/UHF Equipment	Air-ground base station transceivers AM/FM	**33 855**	7	283	409	**692**	0.2			
	Microwave links	**83 822**	10	554	712	**1 267**	0.2			
	Mobile stations for trunking systems	**537**	9	5	5	**10**	0.2			
	Paging equipment	**2 282**	10	20	19	**40**	0.2			
	Portable MTSX for trunking	**2 290**	8	20	24	**44**	0.2			
	Repeaters	**3 459**	7	24	42	**66**	0.2			
	VHF alarm units	**2 220**	9	12	21	**33**	0.2			
	VHF multiplex channels	**51 513**	10	151	438	**588**	0.2			

(Footnotes on following page)

(Footnotes to Annex I)

Abbreviations: APC, armoured personnel carrier; ECM, electronic countermeasures; EOD, explosive ordnance disposal; GPS, Global Positioning System; HF, high frequency; IED, improvised explosive device; IEDD, improvised explosive device disposal; NIJ, National Institute of Justice standards; PRP, prime power; PV, photovoltaic; RE, renewable energy; RF, radio frequency; ROWPU, reverse osmosis water purification unit; SWS, sniper weapons system kit.

Note: The increases approved by the General Assembly have been applied to the generic fair market value and the maintenance rates, from which the dry lease and wet lease rates are derived by the formula established by the Phase III Working Group. This allows for clarity and transparency of calculations in future reviews. The formulas for calculating the dry and wet lease rates are as follows: monthly dry lease rate: (generic fair market value/useful life/12) + (generic fair market value x no-fault incident factor/12) and monthly wet lease rate: (generic fair market value/useful life/12) + (generic fair market value x no-fault incident factor/12) + monthly maintenance rate (A/C.5/49/70, annex, notes to appendix II.B, p. 37). The monthly wet lease rates of reimbursement are calculated by adding the approved dry lease rate plus estimated monthly maintenance cost. Corrections have been made to account for arithmetic accuracy.

[a] All rates are effective 1 July 2017.

[b] New major equipment recommended by the 2017 Working Group on Contingent-Owned Equipment.

[c] Demining and explosive ordnance/improvised explosive device disposal equipment should perform in compliance with International Mine Action Standards.

[d] The maintenance rate for all medical modules is calculated at 0.5 per cent of the generic fair market value (A/C.5/55/39, para 118 (c)).

[e] The generic fair market value for medical equipment was adjusted to set the same value of identical equipment across the various levels of medical facilities and modules using level 2 as the anchor value (A/C.5/65/16, paras. 138, 144, 148 and 150).

[f] In chapter 3, annex A, paragraphs 30 and 33, it is stated that, owing to the special nature of aircraft and naval vessels, type, quantity and performance criteria will be stipulated separately in letters of assist.

[g] The rates for the categories for armoured personnel carriers and tanks are to be regarded as interim until the next generic fair market value review. To determine in which class a carrier or tanks are to be placed, the generic fair market value of the class of carrier or tank closest to the actual value of the carrier or tank from the troop/police contributor will be used (A/C.5/55/39, para. 40).

[h] The sniper weapons system kit should consist of rifle, scope, night scope, weather meter and carrying case/bag.

[i] Applicable to military contingents with riot control tasks only.

Annex 2

2017 COE Working Group

Revised rates of reimbursement for self-sustainment[a]

(United States dollars)

Factors: Environmental: Intensified operational: Hostility forced abandonment:	*Monthly rate (excluding factors)*	*Monthly rate (including factors)*	*Personnel strength ceiling*	*Monthly reimbursement (including factors)*
Catering	28.54			
Communications:				
High frequency	17.98			
Telephone	15.49			
VHF/UHF-FM	47.43			
Office	22.86			
Electrical	27.51			
Minor engineering	17.85			
Explosive ordnance disposal	8.51			
Laundry and cleaning:				
Laundry	9.46			
Cleaning	14.10			
Tentage	26.62			
Accommodation	41.45			
Basic firefighting	0.23			
Fire detection and alarm	0.16			
Medical:				
Basic	2.18			
Level 1	16.11			
Level 2 (including dental and lab)	21.53			
Level 3 (including dental and lab)	25.68			
Level 2 and 3 combined (including dental and lab)	35.98			
High-risk areas (epidemiological)	9.12			
Blood and blood products	2.29			
Laboratory only	4.59			
Dental only	2.78			
Gynaecology[b]	2.13			
Observation:				
General	1.45			
Night observation	24.40			
Positioning	5.75			
Identification	1.21			
Nuclear, biological and chemical protection	26.93			
Field defence stores	34.32			

Factors: Environmental *Intensified operational* *Hostility forced abandonment*	*Monthly rate (excluding factors)*	*Monthly rate (including factors)*	*Personnel strength ceiling*	*Monthly reimbursement (including factors)*
Miscellaneous general stores:				
Bedding	17.80			
Furniture	23.20			
Welfare	6.73			
Internet access	3.16			
Unique equipment	Special case			

[a] The rates are effective from 1 July 2017.
[b] A/C.5/68/22, paragraph 131 (a), for female personnel only.

Annex 3

2017 COE Working Group

New items of major equipment

(United States dollars)

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incident factor (Percentage)	Monthly non-United Nations POL	Powering rate	Repowering rate
Armaments	Anti-tank grenade launcher (40 mm) (set of 2)	**1 524**	25	60	6	**66**	0.5			
	Anti-tank grenade launcher (40 mm) (set of 3)	**2 286**	25	90	9	**99**	0.5			
	Sniper rifle (SWS kit) (up to 10 mm)[a]	**3 000**	25	15	11	**26**	0.5			
	Sniper rifle (SWS kit) (anti-materiel rifle) (up to 15 mm)[a]	**5 063**	25	25	19	**44**	0.5			
Communications vehicles	Mobile tactical communications post	**48 000**	12	546	353	**899**	0.5	150	**891**	**1 012**
Demining and EOD equipment	Man-portable high-power ECM (cell/GPS/jammer)	**38 100**	7	6	457	**463**	0.1			
	Mobile ECM (jammer) against remote activated IEDs	**120 362**	7	1 361	1 443	**2 804**	0.1			
	Remote control mine clearance tracked vehicle	**589 860**	20	424	2 507	**2 931**	0.1	250	**891**	**1 012**
Demining EOD/IEDD equipment	Armoured cabin EOD/IEDD team truck vehicle	**785 079**	15	3 767	4 427	**8 194**	0.1	450	**891**	**1 012**
	Mine-resistant ambush protected vehicle	**300 000**	15	3 500	1 692	**5 192**	0.1	350	**891**	**1 012**
	Remote operated vehicle with observation and/or disruption capacity	**91 496**	10	1 000	770	**1 770**	0.1	150	**891**	**1 012**
	Portable X-ray system for EOD	**5 600**	5	200	94	**294**	0.1			
	Demining EOD/IEDD set	**20 855**	2	251	871	**1 123**	0.1			
	EOD disrupter	**3 850**	2	6	161	**167**	0.1			
	EOD operator tool kit	**3 805**	2	10	159	**169**	0.1			
	Explosive storage/detonator box	**1 056**	2	6	44	**50**	0.1			
	Firing cables (300 m)	**760**	2	6	31	**37**	0.1			
	Firing system to initiate disrupters/charges	**3 500**	2	6	146	**152**	0.1			
	Hook and line toolkit for EOD	**72**	2	7	3	**10**	0.1			
	IED/post-blast investigation kit	**4 987**	2	200	208	**408**	0.1			

Category of equipment	Type of equipment	Generic fair market value	Estimated useful life in years	Maintenance rate	Monthly dry lease	Monthly wet lease	No-fault incident factor (Percentage)	Monthly non-United Nations POE	Painting rate	Repainting rate
	Vehicle borne improvised explosive device telescopic search mirror with light (9 feet)	119	2	2	5	7	0.1			
	Vehicle and building access kit	2 726	2	8	114	122	0.1			
Electrical	PRP standard and role generator 20-30 kVA	**18 200**	6	475	256	**731**	0.2	309	**221**	**324**
	PRP standard and role generator31-40 kVA	**20 600**	6	483	290	**773**	0.2	432	**221**	**324**
	PRP standard and role generator41-50 kVA	**26 300**	6	553	370	**923**	0.2	555	**221**	**324**
	PRP standard and role generator51-75 kVA	**27 600**	6	575	388	**963**	0.2	771	**221**	**324**
	PRP standard and role generator 76-100 kVA	**32 300**	6	725	454	**1 179**	0.2	1 080	**334**	**352**
	PRP standard and role generator 101-150 kVA	**39 400**	6	1 033	554	**1 587**	0.2	1 543	**334**	**352**
	PRP standard and role generator 151-200 kVA	**47 600**	6	1 303	669	**1 977**	0.2	2 160	**334**	**352**
	PRP standard and role generator 201-330 kVA	**53 600**	6	1 633	753	**2 386**	0.2	2 800	**362**	**407**
	PRP standard and role generator 331-500 kVA	**64 550**	6	1 808	907	**2 715**	0.2	3 086	**362**	**407**
	PRP standard and role generator more than 500 kVA	Special case							**362**	**407**
	Limited-time running power role generator		12	Wet lease reimbursement at 50 per cent of equivalent PRP rate						
	Emergency standby power role generator		12	Wet lease reimbursement at 30 per cent of equivalent PRP rate						
	Generator — excess requirement (only for the period 2017-2020)			Wet lease reimbursement at 10 per cent of equivalent PRP rate						
	RE integrated diesel PV low penetration hybrid systems Allowable power penetration range (PV peak power kW to generator 100 per cent load rating kW) of 25-35 per cent									
	RE hybrid systems 20-30 kVA			Wet lease reimbursement at 120 per cent of equivalent PRP rate						
	RE hybrid systems 31-40 kVA			Wet lease reimbursement at 125 per cent of equivalent PRP rate						
	RE hybrid systems 41-50 kVA			Wet lease reimbursement at 130 per cent of equivalent PRP rate						
	RE hybrid systems 51-75 kVA			Wet lease reimbursement at 135 per cent of equivalent PRP rate						

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (Percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	RE hybrid systems 76-100 kVA			Wet lease reimbursement at 140 per cent of equivalent PRP rate						
	RE hybrid systems 101-150 kVA			Wet lease reimbursement at 145 per cent of equivalent PRP rate						
	RE hybrid systems 151-200 kVA			Wet lease reimbursement at 150 per cent of equivalent PRP rate						
	RE hybrid systems 201-330 kVA			Wet lease reimbursement at 160 per cent of equivalent PRP rate						
	RE hybrid systems 331-500 kVA			Wet lease reimbursement at 180 per cent of equivalent PRP rate						
	RE hybrid systems more than 500 kVA	Special case								
	Integrated diesel PV medium and high penetration hybrid systems. Power penetration (PV peak power kW to generator 100 per cent load rating kW) more than 35 per cent	Special case								
	Autonomous PV and battery systems, with or without backup or peak demand generators	Special case								
	Solar PV area and street lighting units, equipped with LEDs, batteries and sensors-timer	Special case								
	Other renewable energy systems	Special case								
Engineering equipment	Soil laboratory equipment	**37 958**	10	287	332	**619**	0.5			
Engineering vehicles	Compressor equipment truck	**139 436**	5	522	2 336	**2 858**	0.1	350	**1427**	**1792**
	Crusher plant	**148 750**	10	650	1 252	**1 902**	0.1	500	**1825**	**2253**
Force protection surveillance equipment	Analog/digital surveillance of United Nations camps, full set	**148 200**		850	1 436	**2 286**	0.1			
	Automated thermal image processing and monitoring system (with recording capacity)	**90 575**	10	500	762	**1 262**	0.1			
	Day and night cameras (set of 5)	**22 625**	5	135	379	**514**	0.1			
	Inside base surveillance dome camera (360° + thermal view)	**15 000**	10	115	126	**241**	0.1			
	Microwave circuit	**20 000**	10	100	168	**268**	0.1			

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (Percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
	Ground surveillance radar for quick-reaction forces	**456 000**	5	90	7 676	**7 766**	0.2			
Medical and dental equipment	Physiotherapy module	**13 300**	5	67	223	**289**	0.1			
Miscellaneous communications equipment	Cell phones (set of 5)	**1 200**	5	10	20	**30**	0.2			
	RF inhibitors/cell phone jammer (portable/man pack) (set of 3)	**1 500**	7	10	18	**28**	0.2			
	RF inhibitors/cell phone jammer (vehicle-mounted)	**1 000**	7	18	12	**30**	0.2			
	RF tracker/bug locator (set of 4)	**1 200**	7	5	14	**19**	0.2			
	Tactical satellite terminal	**90 000**	7	100	1 686	**1 186**	0.2			
	Videoconferencing system	**5 500**	7	15	66	**81**	0.2			
Military police kit	Investigation laboratory kit	**9 079**	10	395	79	**474**	0.5			
	Mobile crash barriers	**8 000**	10	40	70	**110**	0.5			
	Outdoor inspection mirrors (set of 3)	**1 050**	5	5	18	**23**	0.5			
	Road spike belt	**1 095**	5	5	19	**24**	0.5			
	Traffic cones (set of 30)	**1 500**	5	7	26	**33**	0.5			
	Under carriage inspection mirrors (set of 10)	**1 200**	5	1	21	**22**	0.5			
Observation equipment	Enhanced electronic GPS tracking system (set of 5)	**1 000**	10	10	9	**19**	0.2			
Riot control equipment	Stun baton (electric) (set of 5)	**2 000**	5	10	34	**44**	0.5			
	Ballistic shield 0108/IV-NIJ (static)	**1 100**	15	5	7	**12**	0.5			
Riot control equipment — other riot control equipment	Ballistic shield IIIA-NIJ (portable; full-body protection)	**3 200**	10	16	28	**44**	0.5			
	Ballistic shield IIIA-NIJ (portable; upper-body protection)	**2 500**	10	12	22	**34**	0.5			
	Breaching tools set (for one unit)	**2 500**	5	12	43	**55**	0.5			
	Bulletproof shield portable (set of 3)	**1 305**	8	7	14	**21**	0.5			
	Personal mounted cameras (set of 2)	**1 400**	7	5	17	**22**	0.5			
	Rappelling gear set (for one unit)	**1 942**	5	10	33	**43**	0.5			
	Vehicle mounted cameras (set of 2)	**3 999**	7	15	49	**64**	0.5			

Category of equipment	*Type of equipment*	*Generic fair market value*	*Estimated useful life in years*	*Maintenance rate*	*Monthly dry lease*	*Monthly wet lease*	*No-fault incident factor (Percentage)*	*Monthly non-United Nations POL*	*Painting rate*	*Repainting rate*
Satellite equipment	Satellite phone	**1 295**	7	15	16	**31**	0.5			
Specialized police team	Forensic kit	Special case								
	Forensic laboratory	Special case								
	High thermal image system (stationary)	Special case								
	High thermal image system (mobile)	Special case								
Support vehicles (civilian pattern)	Truck, utility/cargo (less than 1.5 tons) armoured/bulletproof	**119 000**	10	1 250	1 071	**2 321**	0.8	350	**891**	**1012**
Support vehicles (military police)	High-mobility light tactical vehicles	**450 000**	25	1 500	1 800	**3 300**	0.8	300	**891**	**1012**
	Jeep (4x4) armoured/bulletproof	**125 000**	10	1 000	1 125	**2 125**	0.8	250	**891**	**1012**
Unmanned aerial systems	Unmanned aerial systems up to 2 kg and 200 feet	**2 000**	3	45	56	**101**	0.5	25		
	All other unmanned aerial systems	Letter of assist								

Abbreviations: ECM, electronic countermeasures; EOD, explosive ordnance disposal; GPS, Global Positioning System; IED, improvised explosive device; IEDD, improvised explosive device disposal; NIJ, National Institute of Justice standards; PRP, prime power; PV, photovoltaic; RE, renewable energy; RF, radio frequency; SWS, sniper weapons system kit.

[a] The sniper weapons system kit should consist of rifle, scope, night scope, weather meter and carrying case/bag.

Annex 4.1

2017 COE Working Group

Level I medical facility

(United States dollars)

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
A. Administration, logistics and communications	4 188	i. Standby generator (portable)[a]	1	4 188
		ii. Furniture[b]	Adequate	
		iii. Stationery/documentation[b]	Adequate	
		iv. Computer/printer[b] (optional, where possible or feasible)	1 set	
		v. Telephone[b] (optional, where possible or feasible)	1 line	
		vi. Facsimile[b] (optional, where possible or feasible)	1 line	
		vii. VHF/UHF communications[b]	Suitable to mission	
		viii. Storage (boxes, cupboards, etc.)[b]	Adequate	
B. Consultation, treatment and emergency	69 257	i. Examination couch[a]	1 set	1 314
		ii. Desk and chairs[b]	1 set	
		iii. Essential diagnostic equipment[a]	2 sets	
		Stethoscope[a]		219
		Ophthalmoscope[a]		1 095
		Otoscope[a]		1 095
		ECG machine[a]		10 946
		Reflex mallet[a]		219
		Thermometers[a]		110
		Sphygmomanometer[a]		219
		Gynaecological speculum[a]		657
		Proctoscope[a]		657
		Measuring tape[a]		22
		Torch[a]		44
		Examination lamp[a]		4 378
		Miscellaneous[a]		2 189
		iv. X-ray view box[a]	1	1 095
		v. Minor treatment/dressing sets[b]	Adequate quantity consumables	
		vi. Resuscitation trolley (fully equipped)[a]	2 sets	4 378
		vii. Intubation set[a]	2 sets	3 284
		viii. Coniotomy set[a]	2 sets	1 095
		ix. Defibrillator[a]	2	17 514
		x. Oxygen cylinder[a]	2	438
		xi. Suction unit[a]	2	2 189
		xii. Nebulizer[a]	2	439
		xiii. Perfusion stands[a]	2	438
		xiv. General purpose sets[a]	3	582
		xv. Sets for chest tube insertion, catheterization and venous "cut-downs"[a]	2 sets	1 314

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
		xvi. Infusion pump[a]	2	9 851
		xvii. Pulse oxymeter[a]	1	3 284
		xviii. Pulse oxymeter (portable)[a]	1	194
C. Pharmacy	875	Refrigerator for drugs[a]	1	875
		Analgesics[b]	Adequate and essential in variety to support battalion for 50 days	
		Antipyretics[b]		
		Antibiotics[b]		
		Drugs for common respiratory conditions[b]		
		Drugs for common gastrointestinal conditions[b]		
		Drugs for common musculoskeletal conditions[b]		
		Drugs for common cardiovascular conditions[b]		
		Drugs for other common illnesses[b]		
		Resuscitation drugs and equipment (including narcotics)[b]		
D. Sterilization	4 188	Field autoclave sterilizer[a]	1	4 188
E. Inpatient care	4 555	i. Collapsible beds[a]	5	1 309
		ii. Crutches[a]	2 pairs	219
		iii. Trolley for drugs[a]	1	2 189
		iv. Utensils for feeding patients[a]	5 sets	838
F. Transportation. Two fully equipped ambulances will be reimbursed as major equipment in annex B to memorandum of understanding		Fully equipped ambulance[a]		
		Doctor's bag[a]	1 fully equipped ambulance	
		Oxygen cylinders[a]		
		Suction pump[a]		
		Resuscitation drugs[a]		
		Helicopter landing site marking equipment (smoke grenades, luminous sticks/sheets, etc.)[a]		
		Communications equipment (VHF/UHF)[a]		
		Emergency lighting[a]		
		Vehicle maintenance equipment[a]		
G. Miscellaneous	6 277	i. Doctor's bags[a]	2 sets	3 139
		ii. Paramedic/nurse's bags[a]	3 sets	3 139
	89 341			**89 341**

[a] Reimbursed under major equipment.
[b] Reimbursed under self-sustainment.

Annex 4.2

2017 COE Working Group

Level II medical facility

(United States dollars)

Facility	*Generic fair market value*	*Item*		*Quantity*	*Generic fair market value*
I.A. Outpatient services		i.	Furniture[b]	Adequate	
		ii.	Stationery/documentation[b]	Adequate	
		iii.	Computer/printer[b]	1 set	
		iv.	Telephone[b]	2 lines	
		v.	Facsimile[b]	1 to 2 lines	
B. Consultation rooms (2) per room: $12,239	24 478	i.	Examination couch[c]	1 per room	2 628
		ii.	Desk and chairs[b]	1 set per room	
		iii.	Essential diagnostic equipment[c]	1 set per room	
			Stethoscope[c]		219
			Ophthalmoscope[c]		1 095
			Otoscope[c]		1 095
			ECG machine[c]		10 946
			Reflex mallet[c]		219
			Thermometers[c]		110
			Sphygmomanometer[c]		219
			Gynaecological speculum[c]		657
			Proctoscope[c]		657
			Measuring tape[c]		22
			Torch[c]		44
			Examination lamp[c]		4 378
			Miscellaneous[c]		2 189
		iv.	Documentation and stationery[b]		
C. Pharmacy	4 159	i.	Refrigerator for drugs[c]	1	875
		ii.	Refrigerator for blood/blood products[c]	1	3 284
			Analgesics[b]	Adequate quantity and essential variety to support 40 outpatients per day for a period of 60 days. The list of drugs is listed in the Medical Support Manual for United Nations Peacekeeping Operations	
			Antipyretics[b]		
			Antibiotics[b]		
			Drugs for common respiratory conditions[b]		
			Drugs for common gastrointestinal conditions[b]		
			Drugs for common musculoskeletal conditions[b]		
			Drugs for common cardiovascular conditions[b]		
			Drugs for other common illnesses[b]		
			Resuscitation drugs (including narcotics)[b]		
D. Radiography room	184 257	i.	Digital X-ray machine, including X-ray table and printer[c]	1	100 000
		ii.	X-ray view box[c]	2	2 189
		iii.	Protective equipment for staff and patients[c]	2 sets	6 500
		iv.	Ultrasound machine[c]	1	30 227

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
		v. Mobile digital X-ray machine[a]	1	45 340
E. Laboratory	31 016	i. Digital haematology analyser[a]	1	5 616
		ii. Digital biochemistry analyser[a]	1	4 823
		iii. Kits for HIV and other relevant tests[b]	5 sets each	
		iv. Microscope[a]	2 sets	6 567
		v. Centrifuge[a]	1 set	3 284
		vi. Urinalysis kit[b]		
		vii. Incubator[a]	1	5 473
		viii. Supplies (tubes, reagents, etc.)[b]		
		ix. Glucometer[a]	1	1 095
		x. Refrigerator[a]	1	875
		xi. Freezer[a]	1	3 284
II. Dental services consultation, treatment and X-ray	161 564	i. Dental chair, electrical[a]	1 set	71 149
		ii. Equipment for treatment[a]	Adequate for 5 to 10 patients per day	3 284
		Extraction[a]		
		Filling[a]		
		Other basic treatment[a]		
		iii. Drilling unit[a]	1 set	21 892
		iv. Digital X-ray equipment[a]	1 set	43 784
		vi. Protective equipment[a]	2 sets	5 036
		vii. Dental sterilizer[a]	1 set	16 419
		viii. Furniture[b]	Adequate	
III.A. Surgery/ anaesthesia emergency resuscitation/ anaesthesia/ recovery	97 049	i. Desk and chairs[b]	2 to 3 sets	
		ii. Examination couch[a]	2 sets	2 628
		iii. Essential diagnostic equipment	2 sets	
		Stethoscope[a]		219
		Ophthalmoscope[a]		1 095
		Otoscope[a]		1 095
		ECG machine[a]		10 946
		Reflex mallet[a]		219
		Thermometers[a]		110
		Sphygmomanometer[a]		219
		Gynaecological speculum[a]		657
		Proctoscope[a]		657
		Measuring tape[a]		22
		Torch[a]		44
		Examination lamp[a]		4 378
		Miscellaneous[a]		2 189
		iv. X-ray viewer[a]		1 095
		v. Minor treatment/dressing set[b]	Adequate	
		vi. Resuscitation trolley (fully equipped)[a]	2 sets	4 378
		vii. Intubation sets[a]	2 sets	3 284

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
		viii. Coniotomy set[a]	2 sets	1 095
		ix. ECG machine[a]	1 set	5 473
		x. Defibrillator[a]	1 set	8 757
		xi. Portable ventilator/oxygen cylinder[a]	1 set	7 114
		xii. Pulse oximeter[a]	1 set	3 284
		xiii. Suction unit[a]	1 set	1 095
		xiv. Nebulizer[a]	1 set	219
		xv. Backboards/vacuum mattress[a]	2 sets	7 662
		xvi. Excision/suture sets[a]	3 sets	5 254
		xvii. Perfusion stands[a]	3 sets	657
		xviii. Sets for chest tube insertion, catheterization and venesection[a]	2 sets each	1 314
		xix. Anaesthetic gas supply system[a]	To support 3-4 operations per day	21 892
		xx. Drugs and consumables required for induction of anaesthesia (including local and regional anaesthesia) and post-operation recovery[b]		
B. Operating theatres	149 849	i. Operating tables[a]	1	15 324
		ii. Operating theatre lamps[a]	2	13 135
		iii. Anaesthesia machine[a]	1	54 729
		iv. Oxygen and anaesthetic gases[b]	Essential	
		v. Diathermy machine[a]	1	8 757
		vi. Suction unit for body fluids[a]	1	4 378
		vii. Laparotomy sets[a]	Quantity to support 3-4 operations per day	12 041
		viii. Thoracotomy sets[a]		
		ix. Craniotomy sets[a]		
		x. Wound exploration sets[a]		
		xi. Amputation sets[a]		
		xii. Fracture fixation sets and fixation equipment[a]		
		xiii. Appendectomy and general purpose sets[a]		
		xiv. Disinfection equipment[a]	Adequate	4 378
		xv. Resuscitation/monitoring equipment trolley with drugs[a]	1 set	2 189
		Defibrillator[a]		8 757
		Ventilator[a]		7 114
		Intubation sets[a]		1 642
		Infusion pump[a]		4 925
		Suction pump[a]		1 095
		Pulse oximeter[a]		3 284
		xvi. Oxygen cylinders[a]	2	438
		xvii. Patient transport/transfer trolley[a]	2	7 662
		xviii. Surgical consumables[b]	To support 3-4 operations per day	
C. Sterilization room	58 889	i. Autoclave sterilizer[a]	1 set	43 784
		ii. Boiler[a]	1	4 378
		iii. Disinfection equipment[a]	1 set	7 662

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
		iv. Fire extinguisher[b]	1	
		v. Furniture and supplies[b]	Adequate	
		vi. Machine for cleansing surgical instruments[a]	1 or 2	3 065
IV. Wards	49 037	i. Collapsible multipurpose hospital beds[a]	20 beds	21 892
A. General multidiscipline wards		ii. Orthopaedic traction equipment[a]	2 sets per ward	10 508
		iii. Mini dispensary (trolley)[a]	1 per ward	2 627
		iv. Essential medical supplies and equipment for inpatient care[b]	Adequate quantity based on number of beds (20)	
		v. Furniture, office supplies, etc.[b]		
		vi. Crutches[a]	4 sets	439
		vii. Wheelchairs[a]	2 sets	2 627
		viii. Cloth patients[a]	1 set	10 946
B. Intensive care ward	50 983	i. Intensive care hospital beds[a]	2 beds	3 284
		ii. Blood gas analyser[a]	1	10 593
		iii. Resuscitation/monitoring equipment[a]	1 set	
		Trolley with drugs[a]		2 189
		Defibrillator[a]		8 757
		Ventilator[a]		7 114
		Intubation sets[a]		1 642
		Infusion pump[a]		4 925
		Suction pump[a]		1 095
		Multiline vital signs monitor[a]		10 946
		Oxygen cylinders[a]		438
V. Support services	26 270	i. Cooking equipment[a]	To cater to 20 inpatients	21 892
A. Catering		Stoves[a]		
		Ovens[a]		
		Boilers[a]		
		Cooking pots, pans, utensils, etc.[a]		
		ii. Serving equipment[a]		1 095
		iii. Cooking equipment[b]	To cater to hospital staff	
		Stoves[b]		
		Ovens[b]		
		Boilers[b]		
		Cooking pots, pans, utensils, etc.[b]		
		Serving equipment[b]		
		iv. Dishwashers[a]	1	2 189
		v. Cleaning equipment[a]	1 set	1 095
		vi. First-aid kit[b]	1 set	
		vii. Fire extinguisher[b]	2	
B. Laundry for hospital use	4 925	i. Washing machines[a]	2 machines	3 284
		ii. Clothes dryer[a]	1 machine	1 642
		iii. Detergents and supplies[b]	Adequate	

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
C. Storage/supplies room	18 170	i. Storage shelves[a]	Adequate quantity	10 946
		ii. Storage cupboards/cabinets[a]		5 473
		iii. Refrigerator[a]		1 751
D. Maintenance	5 473	i. Equipment and tools for maintenance of equipment and infrastructure[a]	1 set	5 473
		ii. First-aid kit[b]	1 set	
E. Communications room		i. Telephone[b]	2 sets	
		ii. Internal telephone system[b]	1 set	
		iii. Facsimile machine[b]	1 set	
		iv. Computer with e-mail[b]	1 set	
		v. Furniture and stationery[b]	Adequate quantity	
		vi. VHF/UHF radio for communication with forward medical teams[b]	1 set	
F. Transportation Two fully equipped ambulances. Will be reimbursed as major equipment in annex B to the memorandum of understanding		i. Fully equipped ambulances[a]	2 fully equipped ambulances	
		Doctor's bag[a]		
		Oxygen cylinders[a]		
		Suction pump[a]		
		Resuscitation drugs[a]		
		Helicopter landing site marking equipment (smoke grenades, luminous sticks/sheets, etc.)[a]		
		Emergency lighting[a]		
		Communications equipment (VHF/UHF)[a]		
		Vehicle maintenance equipment[a]		
		ii. First-aid kit[b]	1 set	
		iii. Furniture and stationery[b]	Adequate	
G. Generator room Two sets of standby generators will be reimbursed as major equipment in annex B to the memorandum of understanding		i. Standby generators (>20 kVA)[a]	2 sets	
		Maintenance equipment[a]		
		First-aid kit[b]		
		Fire extinguisher[b]		
H. Fuel storage		i. Fuel for generators[b]	1 week's supply	
		ii. Fire extinguishers[b]	2 sets	
I. Staff room		i. Lounge furniture[b]	1 set	
		ii. Other furniture[b]	Adequate	
		iii. Coffee maker/other beverage appliances[b]	1 set	
J. Water and sanitation. Will be reimbursed as major equipment in annex B to memorandum of understanding		i. Toilet facilities and sanitation system[a]	Adequate for 20 inpatients and 50 outpatients	
		ii. Toilet facilities and sanitation system[a]	Adequate for staff	
		iii. Shower facilities and system[a]	For inpatients	
		iv. Water supply for hospital facilities, reverse osmosis[a]	Adequate	
		v. Refuse disposal facilities and system[a]	Adequate	

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
K. Miscellaneous	43 790	i. Medical disposables (contaminated) collection and disposal system[a]	Adequate	10 947
		ii. Biological waste disposal system[a]	Adequate	10 947
		iii. Hand-washing facilities and systems for hospital staff[b]	According to hygiene requirement	21 896
	909 908			**909 909**

[a] Reimbursed under major equipment.
[b] Reimbursed under self-sustainment.

Annex 4.3

2017 COE Working Group

Level III medical facility

(United States dollars)

Facility	Generic fair market value	Item		Quantity	Generic fair market value
I.A. Outpatient services		i.	Furniture[a]	Adequate	
		ii.	Stationery/documentation[a]	Adequate	
		iii.	Computer/printer[a]		
		iv.	Telephone[a]	2 lines	
		v.	Facsimile[a]	1 to 2 lines	
B. Consultation rooms (4) per room: $12,239	48 956	i.	Desk and chairs[a]	1 set per room	
		ii.	Examination couch[a]	1 per room	5 255
		iii.	Essential diagnostic equipment[a]	1 set per room	
			Stethoscope[a]		439
			Ophthalmoscope[a]		2 189
			Otoscope[a]		2 189
			ECG machine[a]		21 893
			Reflex mallet[a]		439
			Thermometers[a]		219
			Sphygmomanometer[a]		439
			Gynaecological speculum[a]		1 314
			Proctoscope[a]		1 314
			Measuring tape[a]		44
			Torch[a]		89
			Examination lamp[a]		8 756
			Miscellaneous[a]		4 378
		iv.	Documentation/stationery[a]	Adequate	
C. Pharmacy	8 318	i.	Refrigerator for drugs[a]	2	1 750
		ii.	Refrigerator for blood/blood products[a]	2	6 567
			Analgesics[b]	Adequate quantity and variety to support 50-60 outpatients per day for a period of 60 days. The list of drugs is listed in the Medical Support Manual for United Nations Peacekeeping Operations	
			Antipyretics[b]		
			Antibiotics[b]		
			Drugs for common respiratory conditions[b]		
			Drugs for common gastrointestinal conditions[b]		
			Drugs for common musculoskeletal conditions[b]		
			Drugs for common cardiovascular conditions[b]		
			Drugs for other common illnesses[b]		
			Resuscitation drugs, including narcotics[b]		
D. Radiography room	183 162	i.	Digital X-ray machine, including X-ray table and printer[a]	1	100 000
		ii.	X-ray view box[a]	1	1 095
		iii.	Protective equipment for staff and patients[a]	2 sets	6 500
		iv.	Ultrasound machine[a]	1 set	30 227
		v.	Mobile digital X-ray machine[a]	1	45 340

Facility	Generic fair market value	Item	Quantity	Generic fair market value
E. Laboratory	59 710	i. Digital haematology analyser[a]	2	11 232
		ii. Digital biochemistry analyser[a]	2	9 646
		iii. Kits for HIV and other blood tests[b]	5 sets each	
		iv. Microscope[a]	3 sets	9 851
		v. Centrifuge[a]	2 sets	6 567
		vi. Urinalysis kit[b]	Adequate	
		vii. Incubator[a]	1	5 473
		viii. Lab supplies[b]	Adequate	
		ix. Glucometer[a]	2	2 189
		x. Blood gas analyser[a]	1 set	10 593
		xi. Bacterial culture material[b]	Adequate	
		xii. Refrigerator[a]	1	875
		xiii. Freezer[a]	1	3 284
II. Dental services 1 dental chair: $161,564 2 dental chairs: $262,924	262 924	i. Dental chair, electrical[a]	2 sets	142 299
		ii. Equipment for treatment[a] Extraction[a] Filling[a] Other basic treatment[a]	Adequate for 5[c] patients per day	6 567
		iii. Drilling unit[a]	2 sets	43 783
		iv. Furniture[b]	Adequate	
		v. Digital X-ray equipment[a]	1 set	43 784
		vii. Protective equipment[a]	4 sets	10 072
		viii. Dental sterilizer[a]	1 set	16 419
III.A. Surgery/ anaesthesia, emergency room and recovery Without duplication: $78,342	156 683	i. Desk and chairs[b]	2 to 3 sets	
		ii. Examination couch[a]	3 sets	3 942
		iii. Essential diagnostic equipment[a]	3 sets	
		Stethoscope[a]		329
		Ophthalmoscope[a]		1 642
		Otoscope[a]		1 642
		ECG machine[a]		16 419
		Reflex mallet[a]		329
		Thermometers[a]		164
		Sphygmomanometer[a]		329
		Gynaecological speculum[a]		985
		Proctoscope[a]		985
		Measuring tape[a]		33
		Torch[a]		66
		Examination lamp[a]		6 567
		Miscellaneous[a]		3 284
		iv. X-ray viewers	3	3 284
		v. Minor treatment/dressing set[b]	Adequate	
		vi. Resuscitation trolley (fully equipped)[a]	2 sets	4 378

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
		vii. Intubation sets	4 sets	6 567
		viii. Coniotomy set[a]	4 sets	2 189
		ix. ECG machine[a]	2 sets	10 945
		x. Defibrillator[a]	2 sets	17 514
		xi. Portable ventilator/oxygen cylinder[a]	2 sets	14 229
		xii. Pulse oximeter[a]	2 sets	6 567
		xiii. Suction unit[a]	2 sets	2 189
		xiv. Nebulizer[a]	2 sets	439
		xv. Backboards/vacuum mattress[a]	4 sets	15 323
		xvi. Excision/suture sets[a]	6 sets	10 509
		xvii. Perfusion stands[a]	4-6 sets	1 314
		xviii. Sets for chest tube insertion, catheterization and venesection[a]	4 sets each	2 628
		xix. Anaesthetic gas supply system[a]	To support up to 10 operations per day	21 892
		xx. Drugs and consumables for induction of anaesthesia (including local and regional anaesthesia) and post-operation recovery		
B. Operating theatres (2) 1 operating theatre: $174,105	348 209	i. Operating tables[a]	1 per operating theatre	30 649
		ii. Operating theatre lamps[a]	2 per operating theatre	26 271
		iii. Anaesthesia machine[a]	1 per operating theatre	109 459
		iv. Oxygen and anaesthetic gases[b]	Essential	
		v. Diathermy machine[a]	1 per operating theatre	17 514
		vi. Suction unit for body fluids[a]	1 per operating theatre	8 756
		vii. Laparotomy sets[a]	Sufficient quantity to support up to 10 operations per day	30 102
		viii. Thoracotomy sets[a]		
		ix. Craniotomy sets[a]		
		x. Wound exploration sets[a]		
		xi. Sets for amputations[a]		
		xii. Fracture fixation sets and fixation equipment[a]		
		xiii. Appendectomy and general purpose sets[a]		
		xiv. Disinfection equipment[a]	Adequate	8 756
		xv. Resuscitation/monitoring equipment	1 set per operating theatre	
		Trolley with drugs[a]		4 378
		Defibrillator[a]		17 514
		Ventilator[a]		14 229
		Intubation sets[a]		3 284
		Infusion pump[a]		9 851
		Suction pump[a]		2 189
		Pulse oximeter[a]		6 567
		Oxygen cylinders[a]	2 per operating theatre	875

Facility	Generic fair market value	Item	Quantity	Generic fair market value
		xvi. Patient transport and transfer trolley[a]	2 per operating theatre	15 323
		xvii. Surgical consumables[b]	To support up to 10 operations per day	
		xviii. Mobile C-arm fluoroscope[a]	1 shared between both operating theatres	40 302
		xix. X-ray view box[a]	2 shared between both operating theatres	2 189
C. Sterilization room 1 set: $58,889	114 713	i. Autoclave sterilizer[a]	2 sets	87 568
		ii. Boiler[a]	2 sets	8 756
		iii. Disinfection equipment[a]	2 sets	15 323
		iv. Furniture and supplies[b]	Adequate	
		v. Machine for cleansing surgical instruments[a]	1 or 2	3 065
IV.A. Wards	109 021	i. Collapsible multipurpose hospital beds[a]	50 beds (25 per ward)	54 729
		ii. Orthopaedic traction equipment[a]	4 seats per ward	21 015
		iii. Mini dispensary (trolley)[a]	1 per ward	5 253
		iv. Essential medical supplies and equipment for inpatient care[b]	Adequate for number of beds	
		v. Furniture, office supplies, etc.[b]	Adequate	
		vi. Crutches[a]	8 sets	877
		vii. Wheelchairs[a]	4 sets	5 253
		viii. Cloth patients[a]	2 sets	21 893
B. Intensive care wards per 2 beds: $36,900	91 373	i. Intensive care hospital beds[a]	4 beds	6 567
		ii. Blood gas analyser[a]	1	10 593
		iii. Resuscitation/monitoring equipment[a]	2 sets	
		Trolley with drugs[a]		4 378
		Defibrillator[a]		17 514
		Ventilator[a]		14 229
		Intubation sets[a]		3 284
		Infusion pump[a]		9 851
		Suction pump[a]		2 189
		Multiline vital signs monitor[a]		21 893
		Oxygen cylinders[a]		875
V.A. Support services	64 032	i. Cooking equipment[a]	To cater to 50 inpatients	54 729
		Stoves[a]		
		Ovens[a]		
		Boilers[a]		
		Cooking pots, pans, utensils, etc.[a]		
		ii. Serving equipment[a]		2 736
		iii. Cooking equipment[b]	To cater to hospital staff	
		Stoves[b]		
		Ovens[b]		
		Boilers[b]		

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
		Cooking pots, pans, utensils, etc.[b]		
		Serving equipment[b]		
		iv. Dishwashers[a]	2	4 378
		v. Cleaning equipment[a]	2 sets	2 189
		vi. First-aid kit[b]	1	
		viii. Fire extinguisher[b]	2	
B. Laundry for hospital use	8 209	i. Washing machines[a]	3 machines	4 925
		ii. Clothes dryer[a]	2 machines	3 284
		iii. Detergents and supplies[b]	Adequate	
C. Storage/supplies room	27 256	i. Storage shelves[a]	Adequate	16 419
		ii. Storage cupboards/cabinets[a]	Adequate	8 209
		iii. Refrigerator[a]	2 or 3	2 627
D. Maintenance	10 945	i. Equipment and tools for maintenance of equipment and infrastructure[a]	2 sets	10 945
		ii. First-aid kit[b]	1 set	
E. Communications room		i. Telephone[b]	2 sets	
		ii. Internal telephone system[b]	1 set	
		iii. Facsimile machine[b]	1 set	
		iv. Computer with e-mail[b]	1 set	
		v. Furniture and stationery[b]	Adequate	
		vi. VHF/UHF with link to commanding officer and forward medical teams[b]	1 set	
F. Transportation Two fully equipped ambulances will be reimbursed as major equipment in annex B to the memorandum of understanding		i. Fully equipped ambulances[a]	2 fully equipped ambulances	
		Doctor's bag[a]		
		Oxygen cylinders[a]		
		Suction pump[a]		
		Resuscitation drugs[a]		
		Helicopter landing site marking equipment (smoke grenades, luminous sticks, sheets, etc.)[a]		
		Emergency lighting[a]		
		Communications equipment (VHF/UHF)[a]		
		Vehicle maintenance equipment[a]		
		ii. First-aid kit[b]	1 set	
		iii. Furniture and stationery[b]	Adequate	
G. Generator room Three sets of standby generators will be reimbursed as major equipment in annex B to the memorandum of understanding		i. Standby generator (>20 kVA)[a]	3 sets	
		Maintenance equipment[a]		
		First-aid kit[b]		
		Fire extinguisher[b]		
H. Fuel storage		i. Fuel for generators[b]	1 week's supply	
		ii. Fire extinguishers[b]	2 sets	

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
I. Staff room		i. Lounge furniture[b]	1 set	
		ii. Other furniture[b]	Adequate	
		iii. Coffee maker/other beverage appliances[b]	1 set	
J. Water and sanitation will be reimbursed as major equipment in annex B to the memorandum of understanding		i. Toilet facilities and sanitation system[a]	For 50 inpatients + 50 outpatients	
		ii. Toilet facilities and sanitation system[a]	Adequate for staff	
		iii. Shower facilities and system[a]	For inpatients	
		iv. Refuse disposal facilities and system[a]	Adequate	
		v. Water supply for hospital facilities, reverse osmosis[a]	Adequate	
K. Miscellaneous	43 790	i. Medical disposables (contaminated) collection and disposal system[a]	Per hygiene requirement	10 947
		ii. Biological waste disposal system[a]	Adequate	10 947
		iii. Hand-washing facilities and systems for staff[a]	Adequate	21 896
Total	**1 537 302**			**1 537 302**

[a] Reimbursed under major equipment.
[b] Reimbursed under self-sustainment.

Annex 4.4

2017 COE Working Group

Laboratory-only facility

(United States dollars)

Facility	*Generic fair market value*	*Item*		*Quantity*	*Generic fair market value*
Laboratory	31 016	i.	Digital haematology analyser[a]	1	5 616
		ii.	Digital biochemistry analyser[a]	1	4 823
		iii.	Kits for HIV and other relevant tests[b]	5 sets each	
		iv.	Microscope[a]	2 sets	6 567
		v.	Centrifuge[a]	1 set	3 284
		vi.	Urinalysis kit[b]		
		vii.	Incubator[a]	1	5 473
		viii.	Supplies (tubes, reagents, etc.)[b]		
		ix.	Glucometer[a]	1	1 095
		x.	Refrigerator[a]	1	875
		xi.	Freezer[a]	1	3 284
	31 016				**31 016**

[a] Reimbursed under major equipment.
[b] Reimbursed under self-sustainment.

Annex 4.5

2017 COE Working Group

Dental-only facility

(United States dollars)

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
Dental services consultation, treatment and X-ray	161 564	i. Dental chair, electrical[a]	1 set	71 149
		ii. Equipment for treatment[a] Extraction[a] Filling[a] Other basic treatment[a]	Adequate for 5 to 10 patients per day	3 284
		iii. Drilling unit[a]	1 set	21 892
		iv. Furniture[b]	Adequate	
		v. Digital X-ray equipment[a]	1 set	43 784
		vii Protective equipment[a]	2 sets	5 036
		viii. Dental sterilizer[a]	1 set	16 419
	161 564			**161 564**

[a] Reimbursed under major equipment.
[b] Reimbursed under self-sustainment.

Annex 4.6

2017 COE Working Group

Aero-medical evacuation module

Treatment capability	*Treatment capacity*	*Staffing requirement*	*Equipment requirement*	*Infrastructure requirement*
1. Evacuate casualties 2. Stabilize and sustain a casualty during evacuation 3. Report to the medical emergency coordinator during the evacuation process 4. Can be deployed to support a hospital upon request 5. Function on both rotary and fixed-wing aircraft 6. Able to configure and equip in 30 or less minutes to provide in-flight medical care	Evacuate casualties on a round-the-clock basis Two priority alpha and four priority bravo patients at the same time for a transportation time of six or more hours	2 x medical officer 4 x nurse/ paramedics	According to applicable global air ambulance practice and standards	

Annex 4.6.1

Aero-medical evacuation module

(United States dollars)

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
Aero-medical evacuation module	96 041	Ventilator[a]	2	14 229
		Portable defibrillator integrated in the multiparameter monitor[a]	2	17 514
		Intubation equipment set (both supraglotic and infraglotic)[a]	2 sets	4 189
		Nasogastric tubes set[a]	2 sets	314
		Portable electric suction equipment with lithium battery[a]	2	2 189
		Spinal boards and vacuum mattresses for each patient[a]	2	628
		Stretchers (easy glide type) that lock into the base of an aircraft (can be configured for basic to advanced life support)[a]	2 sets	2 790
		Scoop stretchers[a]	2	837
		Head blocks[a]	2	314
		Neck braces[a]	2	89
		Chest drain kit set[a]	2 sets	837
		Complete vacuum splint set for limbs and body[a]	2 sets	1 676
		Spider harness (straps for securing patient)[a]	2	628
		Vacuum mattress with harness[a]	6	10 684
		Ambu-bags (resuscitation bags and masks) set[a]	2 sets	628
		Glucometer (dry chemical)[a]	2	60
		Portable haemoglobin meter[a]	2 sets	1 400
		Oxygen delivery system[a]	4 sets	870
		Flexible LED lighting[a]	4	201
		Infusion pump, portable ramp of 4 IV electric syringes per intubated-sedated patient, with lithium battery[a]	2	9 851
		Portable multiparameter monitor[a]	2	21 893
		Emergency bag, doctor/nurse/paramedic[a]	6	3 958
		Full medical kit (all medications, plasma expanders)[b]	Adequate	
		Portable storage for medication and disposables[a]	2	264
	96 041			**96 041**

(Footnotes on following page)

(Footnotes to Annex 4.6.1)

Notes:

1. Intubation equipment set should include laryngoscope with blades, emergency tracheotomy kits and endotracheal tubes. All necessary material for oro-tracheal and supraglotic intubation for adults to paediatric patients to include medication for rapid sequence induction kit for cricothyroidotomy and complete set for chest drain. One bag-valve mask per patient. One oxygen humidifier per oxygen tank. One disposable ventilation hose per ventilator. Six available at any time. Bacterial/viral filter: one per main line. Non-invasive ventilation set with continuous positive airway pressure mask in 3 different sizes.
2. Staffing: the aero-medical evacuation team should consist of two sub-teams, each consisting of at least one physician and two nurses/paramedics specialized or trained in aero-medical evacuation.
3. Ventilators offer volume and pressure-based modes for controlled, synchronized or spontaneous ventilation. Non-invasive ventilation flow and pressure curves patient monitoring. Lithium-ion battery 4 hours with in-flight one spare battery. With AC/DC power supply. Should operate under +50 degree Celsius temperature and atmospheric pressure 650 Kpa. Minimum requirement for in-flight ventilation priority alpha patient: VT adjustable 50 to 2000 ml, flow trigger 3 to 15 L/min, Fio2 adjustable 40 to 100%, PEEP, +3 to 20 mbar, I/E 1:4 to 3:1. Apnea alarm. Measured displayed on LCD screen: MV, f,VTe, PEEP, P mean, P peak, P plat, and O_2. Manufacturer should meet the ISO 10651-3 standard.
4. Semi-automated and manual biphasic defibrillation with synchronized mode through adhesive pads, external pacing through adhesive pads, 12-lead electrocardiography, SpO2 , blood pressure (NIBP) monitoring, end- tidal CO2 (EtCO2) monitor for both intubated and non-intubated patients. Continuous intra rectal or esophageal temperature monitoring. All alarm should be audible and visible during transport. One 3-lead ECG monitoring LCD colour screen. Printer lithium-ion battery with a 6-hour autonomy for each monitor (one set of spare batteries for each monitor).
5. Complete vacuum splint set for arm, leg forearm; little vacuum pump and bag. Immobilization of the lower and upper limbs by vacuum. Equipped with suction valve positioned on the outside. Should be X-ray transparent, lower limb traction splint, pelvic splint and cervical collar adjustable to the size of patient.
6. Vacuum mattress: allows the patient to be immobilized and transported wrapped in the mattress. Complete with three belts for the patient and four belts to fit the mattress stretcher completely made in PVC. It is impermeable and easy to clean. Equipped with four handles on each side, two handles on head side and one on foot side for easy transportation.

[c] Reimbursed under major equipment.

[b] Reimbursed under self-sustainment.

Annex 4.7

2017 COE Working Group

Forward surgery module

(United States dollars)

Facility	*Generic fair market value*	*Item*	*Quantity*	*Generic fair market value*
Forward surgery module	162 342	Operating table	1	15 324
		Operating theatre lamps (portable)	2	13 135
		Autoclave sterilizer (one step 10-15l) with basket	1	4 188
		Anaesthesia machine	1	54 729
		Oxygen and anaesthesia gases	Essential	
		Diathermy machine	1	8 757
		Suction unit for body fluids	Adequate	4 378
		Disinfection equipment	1	7 662
		Resuscitation/monitoring equipment trolley with drugs	1	2 189
		Defibrillator	1	8 757
		Ventilator	1	7 114
		Intubation sets	1	1 642
		Infusion pump	1	4 925
		Pulse oximeter	1	3 284
		Oxygen cylinders	2	438
		Patient transport/transfer trolley	1	3 831
		Surgical consumables	To support 2 operations per day	
		Appendectomy and general purpose sets	1	5 758
		Thoracotomy set	1	6 807
		Wound exploration set	1	5 758
		Alligator nasal forceps, serrated jaws 5 1/2"	1	3 665
		Cylinder for presentation of sterile forceps D=4 cm	1	
		Eye, lancet for foreign bodies	1	
		Eye, magnet	1	
		Laryngeal mirrors, small	1	
		Laryngeal mirrors, large	1	
		Laryngeal mirrors, medium	1	
		Nasal speculae 5 3/4" large	1	
		Nasal speculae 5 3/4" medium	1	
		Nasal speculae 5 3/4" small	1	
		Needle holder 5", Mayo-Hegar	1	
		Nipper, 5 1/2", spring	1	
		Retractor, Alm, 1/8" prongs	1	
		Ring cutter	1	
		Scissors, bandage 7 1/4"	1	
	162 342			162 342

Staffing: the forward surgery team should consist of one general surgeon, one anaesthetist and three nurses.

Annex 4.8

2017 COE Working Group

Gynaecology module

(United States dollars)

Facility	*Generic fair market value*	*Item*		*Quantity*	*Generic fair market value*
Gynaecology module	10 932	i.	Gynaecological chair[a]	1	2 872
		ii.	Gynaecological equipment set[a]	1 set	4 030
		iii.	Coloposcope[a]	1	4 030
	10 932				**10 932**

[a] Reimbursed under major equipment.

Annex 4.9

2017 COE Working Group

Orthopaedic module

(United States dollars)

Facility	*Generic fair market value*	*Item*		*Quantity*	*Generic fair market value*
Orthopaedic module	48 348	i.	Basic orthopaedic instrument set[a]	1 set	3 739
		ii.	Mobile C-arm fluoroscope[a]	1	40 302
		iii.	Orthopaedic traction kit[a]	2	4 307
	48 348				**48 348**

[a] Reimbursed under major equipment.

Annex 4.10

2017 COE Working Group

Physiotherapy module

(United States dollars)

Treatment capability	*Treatment capacity*	*Staffing requirement*	*Equipment requirement*	*Infrastructure requirement*
Physiotherapy basic treatment	Up to 5 outpatient treatments per day	1 physiotherapist	Basic physiotherapy equipment	1 x outpatient consultation room

Annex 4.10.1

Physiotherapy module

(United States dollars)

Facility	*Generic fair market value*	*Item*		*Quantity*	*Generic fair market value*
Physiotherapy module	13 300	i.	Sonotherapy[a]	1	2 100
		ii.	Neurotens[a]	1	2 200
		iii.	Magnetotherapy[a]	1	3 200
		iii.	Shortwave (high frequency)[a]	1	3 600
		iv.	Stationary bike lumbar support[a]	1	2 200
	13 300				**13 300**

[a] Reimbursed under major equipment.

Annex 4.11

2017 COE Working Group

Fee-for-service schedule

(United States dollars)

Code	*Type of services*	*Fee*
A	General practitioner	30
B	Specialist on referral	40
C	Nurse (for medical procedures)	20
D	Vaccination/medication/drugs	Actual cost
E	X-ray (referral, image only)	25
F	X-ray with contrast (referral, image only)	65
G	Lab (referral, tests only)	25
H	Dental consultation, emergency only (includes dental X-rays)	65
I	Hospital bed per 24-hour period	80
J	United Nations personnel entry examination (inclusive tests and X-ray for predeployment and post-deployment)	125
K	Surgery, minor (local anaesthesia)	500
L	Surgery, major (general, regional anaesthesia)	1 050

Notes:

1. The fees include consumables utilized during the consultation.
2. Labs or X-ray services rendered are to be billed separately from the consultation fee (with the exception of dental X-rays and United Nations personnel entry examinations, where they are included in the fee).
3. There is to be no patient co-payment charged. The troop/police contributor medical facility bills the mission for the full amount and is reimbursed accordingly.
4. Actual vaccination/medication/drug cost is the cost that the medical facility paid to obtain the stock.
5. Locally recruited staff are exempt from the fee-for-service for surgery in all emergency cases. (*Note*: the table entitled "Fee-for-service reimbursement for medical support services" on the third page of chapter 3, annexes A and B, appendix 11, of the Manual on Policies and Procedures Concerning the Reimbursement and Control of Contingent-Owned Equipment of Troop-Police Contributors Participating in Peacekeeping Missions must be updated to reflect the updates above).

Annex 5.1

2017 COE Manual

Chapter 3, annex A, appendix 1

Generators

1. The ISO 8528 standard includes four ratings for generators: continuous power, prime power, limited running and emergency standby power. Troop/police contributors may choose to deploy generators that meet the ISO 8528 standard or under the existing (pre-2017) arrangements.

Site energy plans

2. Site energy plans will be developed for both existing and planned sites on the basis of energy assessments and forecasts. The core of the plans will be the design of an optimized diesel generation solution for the site, which may consist of an individual generator for the smallest of sites and a bank of two or more generators for other sites. Renewable energy solutions will be integrated into the plans where appropriate. Appropriate backup generation capacity will be included in the design to allow for scheduled and unscheduled outages of the main (prime power) generator units. A core principle of the energy plan will be the appropriate sizing of the generator or generators to match the variable demand and avoid low load operation (ISO 8528-2-5.3).

3. For contingents deploying generators meeting the ISO 8528 standard, site energy assessments will be conducted to ensure compliance with site energy plans. Contingents will enable site access and safeguard the supplied monitoring equipment in order to receive reimbursement at the prime power, limited-time running power and emergency standby power rates. The assessment will be a report provided in draft for review by the troop/police contributor.

Generator role classification

4. Generators deployed under the new categories of generators must meet the ISO 8528 standard. The performance class will be a minimum of class G3, which is the standard of electrical power stability and quality required to safely operate and protect moderately sensitive electrical equipment. In addition, generators will have a power rating of either prime power (unlimited run time), limited-time running power (up to 500 hours of operation per year) or emergency standby power (up to 200 hours of operation per year), depending on their actual operational role. Additional generators will be considered excess requirement. The classification and applied standards will be based upon the ISO 8528 standard. Different technical standards and reimbursable rates will apply to the different classifications.

5. Prime power generators individually or collectively provide the whole or majority of the electricity required by the isolated or mini-grid load. Prime power is defined as the maximum power available for which a generating set is capable of delivering continuously while supplying a variable electrical load when operated for an unlimited number of hours annually under the agreed operating conditions, with the maintenance intervals and procedures carried out as prescribed by the manufacturers. Prime generators can operate either individually, servicing 100 per cent of an isolated load, or as part of a prime generator bank, in which several synchronized generators act as a virtual single generator in a load-following mode.

6. Limited-time running power generators provide a backup role for prime power generators, for both planned and unplanned outages. The common planned outages

are for routine minor maintenance and, in some cases, fuel supply. Limited-time running power is defined as the maximum power available, under the agreed operating conditions, for which a generating set is capable of delivering up to 500 hours of operation annually, with the maintenance intervals and procedures carried out as prescribed by the manufacturers. Reimbursement for limited-time running power generators will be at 50 per cent of the prime power rate.

7. Emergency standby power generators provide a similar backup role for prime power generators. Emergency standby power is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hours of operation annually, with the maintenance intervals and procedures carried out as prescribed by the manufacturers. Reimbursement for emergency standby power generators will be at 30 per cent of the prime power rate.

8. Excess requirement will be reimbursed at 10 per cent of the prime power rate.

9. Renewable energy increases the self-sustainment capacity of camps by reducing the need for fuel supply and related convoys, especially in areas with asymmetric attacks. Deployment of more renewable energy power generation capacity is positive for the personnel's safety, security and health, as well as reducing the missions' environmental impact globally through a reduction in greenhouse gas emissions and in country through air and ground pollution prevention.

Generator sizing

10. Required generator sizes will be determined in the site energy plan. Individual and banks of prime power generators must be sized to operate within the load band of 60-110 per cent on the basis of a kVA: kW power factor of 0.8. The annual average load should not exceed 85 per cent of the rated power.

Prime power generator availability and backup capacity

11. Prime power generators in military base camps and medical facilities must have the capacity to run at least 8,200 hours annually and to operate on a round-the-clock basis. They must have the equivalent of 100 per cent backup capacity of functional generators onsite and be ready for connection in either the limited-time running power or emergency standby power role.

Generator life cycle and reimbursement

12. Generators cannot operate in the prime power generator role beyond their stated useful service life, which shall be assumed to be a maximum of 20,000 hours unless contradicted by the manufacturer's manual. For the purposes of calculation of reimbursement, the useful service life of generators in the prime power role is set as six years in the 2017 reimbursement rates.

13. Beyond 6 years of age and fewer than 12 years, generators may be retained but must be downgraded to a lower power rating of either limited-time running power or emergency standby power and be part of an agreed site energy plan. Downgraded generators within an agreed energy plan will be reimbursed at the rate for their new role. Downgraded generators not within an agreed energy plan and not used will be declared excess requirement.

Generator maintenance and reimbursement

14. Prime power generators will undergo regular routine maintenance and scheduled major overhauls in accordance with the manufacturer manual. Contingents will retain full maintenance records for verification. Where prime power generators have not undergone a major overhaul within either the stated period from the manufacturers manual or 10,000 hours for units up to 200 kW and 15,000 hours for units over 200 kW, whichever is the lesser, the generators shall be downgraded for reimbursement to limited-time running power generator status.

Annex 5.2

2017 COE Manual

Chapter 7, annex B alt

Decision sheet to calculate hostile action/forced abandonment factor in a mission area

Evaluator (rank, name)	Mission area or country	Day/month/year
		/ /

1. General

1. The purpose of the present decision sheet is to assist the evaluator in determining a factor in mission areas that is introduced to compensate troop/police-contributing countries for the impact of hostile action or forced abandonment. This factor, not to exceed 6 per cent, is to be applied to the spares element of the wet lease rate (or half of the estimated monthly maintenance cost when the spares cost cannot be calculated separately)[1] and the self-sustainment rates to compensate for the costs of losses borne by contingents for minor equipment, spare parts and consumables.[2]

2. This decision sheet is to be used by the technical survey team visiting the peacekeeping area at the beginning of a mission together with the decision sheet for evaluating the factor for intensified operational conditions and the decision sheet for evaluating the factor to compensate for extreme environmental conditions.

3. Upon returning from the survey mission, the technical survey team is to submit this report to the military adviser/political adviser and to the Under-Secretary-General for Field Support for review and approval. The resulting factor is to be indicated in the memorandum of understanding to be signed with the relevant troop/police contributor.

4. Although the elements cannot be totally assessed objectively, some assistance to this effect is provided. The evaluator will also have to base the assessment on military experience and common sense to complete this evaluation. When assessing the risk for hostile action and potential forced abandonment, the standards of the traditional chapter VI peacekeeping operations must be kept in mind.

2. Elements

A. Criminal activities, such as theft and robbery

5. Occasional cases of theft occur in mission areas. If, however, criminal activities such as theft or robbery are frequent, allocate points as follows in table below. If not applicable, put zero.

[1] A/C.5/49/70, annex, appendix I.C, para. 4 (a).
[2] Ibid., annex, para. 33 (b).

Is there an effective national police force to control criminal activities? If no, allocate	2
Will or has disarmament of factions taken place? If no, allocate	1
Is there acceptance by the local authorities of banditry? If yes, allocate	2
Is there a frequent occurrence of banditry involving other United Nations agencies and non-governmental organizations? If yes, allocate	3
Total	

B. Potential for hostile engagement of United Nations forces by identified factions or combatants participating in the peace process

6. In a traditional peacekeeping operation, the parties have agreed to settle disputes without the use of force. However, they are not always able to keep this obligation, and some outbursts of violence are expected because the parties are or are perceived to be provoked. Factions within the parties or local warlords might retain armed elements not controlled by the parties signing the peace agreement. Threats to United Nations peacekeepers might increase if the parties have the habit of using weapons, such as artillery or home-made rockets, indiscriminately or if they often seek increased protection by taking up positions close to United Nations observation posts.

Are the combatants equipped with sufficient heavy weapons, such as mortars and medium to heavy machine guns, to inflict damage to United Nations equipment and facilities?	
Allocate points as follows:	
Few heavy weapons and not in range of United Nations forces	1
Some heavy weapons but not normally in range of United Nations forces	2
Well equipped with heavy weapons but not in range of United Nations forces	2
Well equipped with heavy weapons and in range of United Nations forces	4
Are the combatants committed to a lasting peace? If no, allocate	1
Is there a history of disintegration of ceasefire or peace agreements? If yes, allocate	4
Have there been officially sanctioned and frequent attacks on other United Nations agencies or non-governmental organizations? If yes, allocate	4
Total	

C. Distribution of uncontrolled or unmapped minefields

7. Mines are one of the main threats in mission areas where fighting has occurred. These weapons are normally laid without proper registration and markings. If so, allocate points as follows in the table below. If not applicable, put zero.

Few mines posing no immediate threat to the mission	1
Main and secondary roads not mined, but field and open areas are mined	1
Main roads and secondary areas are suspected of being mined	3
Heavy demining is required to secure the area	3
Total	

D. Potential for hostile engagement of United Nations forces by unidentified factions or by individuals or groups other than peace process participants[2]

8. Operating in an increasingly complex security environment, the United Nations peacekeepers are now exposed to threats from more diverse sources. Individuals or groups identified by the United Nations and/or groups not party to the peace process and who are often unidentified or who employ hostile/terrorist methods in the area of operations or other regions of the host nation might seek to attack civilians or targets of international organizations like the United Nations, constituting threats to United Nations peacekeeping assets.

Is there a presence of the aforementioned individuals or groups in host nation outside the area of operations? If yes, allocate	1
Is there a presence of the aforementioned individuals or groups within the area of operations? If yes, allocate	2
Has there been indiscriminate hostile action against civilians by the aforementioned individuals or groups in regions of the host nation outside the area of operations? If yes, allocate	1
Has there been indiscriminate hostile action against civilians by the aforementioned individuals or groups in regions of the host nation within the area of operations? If yes, allocate	3
Has there been hostile action by the aforementioned individuals or groups on non-governmental organizations and/or international organizations other than the United Nations in the host nation? If yes, allocate	3
Has there been hostile action by the aforementioned individuals or groups on United Nations personnel and agencies in the host nation? If yes, allocate	5
Total	

3. Summary

9. Enter the points allocated above in the following summary table:

Factor	*Maximum*	*Points allocated*
Criminal activities	8	
Potential for hostile engagement of United Nations forces by identified factions or combatants participating in the peace process	13	
Distribution of uncontrolled or unmapped mines	6	
Potential for hostile engagement of United Nations forces by unidentified factions or by individuals or groups other than peace process participants	15	
	Total	

10. The hostile action/forced abandonment factor in per cent equals the total points divided by 7, given that it must not exceed 6 per cent. The percentage is to be rounded off to one decimal (e.g., 4.1 per cent).

Hostile action/forced abandonment factor: ____ %